Prepared for:

Washington State Transportation Commission

2008 Ferry Customer Survey

Technical Paper #2: WSF Customer Characteristics

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Preface

Legislation enacted in 2007 directed the Washington State Transportation Commission (WSTC) to conduct a survey to gather data on ferry users to help inform level of service, operational and pricing strategies, planning, and investment decisions. The legislation directed the survey must provide reliable data on the following: (a) recreational use; (b) walk-on customer use; (c) vehicle customer use.

Questions were included in the on-board surveys that provide a detailed profile of all Washington State Ferry (WSF) customers in both winter and summer travel periods. This Technical Paper provides detailed analysis of WSF customers. Specifically it looks at the following:

1. Demographic characteristics of WSF riders;
2. Length of time riding and distance traveled from home to ferry terminal used most often;
3. Travel behavior including:
    a. Boarding mode for sampled trip;
    b. Time and day of travel (weekday or weekend) for sampled trip;
    c. Purpose of sampled trip;
    d. Frequency of Travel
    e. Change in frequency of riding; and
    f. Most common boarding mode.
4. Recreational travel.

Each major section begins with a brief summary of the key findings. Detailed analysis then follows. All key findings are analyzed for the following key segments:

1. Season of travel (when questions were asked in both survey waves);
2. Boarding mode for sampled trip;
3. Route used for sampled trip; and
4. Day of week and time of travel for sampled trip (overall, and when appropriate by boarding mode).

In addition, other analysis is included as appropriate to provide additional insight into WSF rider characteristics and travel behavior.

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Summary – WSF Rider Demographics

This section of the report provides a broad overview of WSF rider demographics. In addition to this broad overview, differences in the demographic profiles for riders on each of the routes are provided. Additional demographic profiles are provided in other areas as appropriate.

WSF customers are nearly equally likely to be men (48%) as women (52%).

- In winter, a nearly equal number of men (49%) and women (51%) ride. In summer, somewhat more women (53%) than men (47%) ride.

WSF customers are somewhat older than the general population in Washington.

- Over half (51%) of all WSF riders are between the ages of 45 and 64; the average (median) age of riders is 51. Reflecting the increase in recreational travel, summer riders are somewhat younger than winter riders – 20 percent are under the age of 35.

Three out of four (76%) WSF riders are employed; 61 percent are employed full-time. There are no significant differences in employment status between winter and summer riders.

WSF riders are relatively affluent.

- Self-reported median household income is $80,703 compared to $55,591 for Washington households in general, and $58,159 for all those living in the counties immediately surrounding Puget Sound where residents are most likely to use the ferries.
- There are no significant differences in household incomes between winter and summer riders.

The demographic characteristics of riders vary somewhat by route and generally reflect the characteristics of the communities each route serves. Profiles for each route are provided beginning on page 17 (Route Level Analysis).

Detailed Findings – WSF Rider Demographics

All Riders: WSF Rider Demographics

Gender: The distribution of WSF customers is almost evenly split between men (48%) and women (52%).

- In the winter, the gender split is essentially identical. In the summer, somewhat more riders are women (53%) than men (47%).
- The gender split in the 2002 WSF Amenity and Customer Satisfaction Survey[1] (conducted late summer) was 54 percent female and 46 percent male. According to the General Market Area / Infrequent Rider Survey, the gender split in the island and West Puget Sound communities served by the ferries is equally split (50 / 50%)[2].

Age: WSF customers are somewhat older than the general population in the Puget Sound counties served by the ferry. Whereas the average (median) age of the ferry-served communities is 45, the average age of WSF riders is 51. The average age of ferry riders reported in the 2006 O&D Survey was 48[3].

- Over half (51%) of all WSF riders are between the ages of 45 and 64 compared to 36 percent in the general population of Puget Sound counties served by the ferries (from the 2008 General Market Area / Infrequent Rider Survey).
- Most likely reflecting the increase in the number of recreational travelers, a greater percentage of summer riders are between the ages, of 16 and 34 – 20% summer compared to 15% winter.

Employment: The majority (76%) of WSF riders are employed, the same as in the 2006 O&D Survey. There are no differences between seasons.

- Sixteen percent (16%) of WSF riders are retired. While this matches generally the population in Puget Sound counties served by the ferries, it is lower than the percentage of retired persons living in the island and West Puget Sound communities served by the ferries (22%) (from the 2008 General Market Area / Infrequent Rider Survey).

Income: WSF customers are relatively affluent. The average (median) household income is $80,703 (self-reported) compared to $55,591 for Washingtonians in general and $58,159 for the island and West Puget Sound communities served by the ferries.

- Income levels reported on this survey are somewhat higher than in 2002 when fewer than half (45%) of riders had incomes greater than $75,000. On the other hand, it is lower than that reported in the 2006 O&D Study ($96,000 [self-reported]).

[1] 2002 Washington State Ferry Amenity and Customer Satisfaction Survey, http://www.wsdot.wa.gov/ferries/pdf/amenity_study.pdf
[2] 2008 General Market and Infrequent Rider Survey conducted as part of the 2008 WSF Customer Survey.
[3] 2006 Washington State Ferry Origin & Destination Survey, http://www.wsdot.wa.gov/NR/rdonlyres/DDE4572D-8F8E-49F1-BE27-A68D3B7264EF/0/WSF2006TravelSurveyFullReport.pdf

Table 1: WSF Rider Demographics

	All Riders (n = 13,130)	Winter (n = 5,471)	Summer (n = 7,659)
Gender			
Male	48%	49%	47%
Female	52%	51%	53%
Age			
16 – 17	1%	1%	1%
18 – 24	6%	4%	**7%**
25 – 34	11%	10%	**12%**
35 – 44	17%	16%	17%
45 – 54	25%	26%	25%
55 – 64	26%	**28%**	24%
65 Plus	14%	15%	14%
Median	51.0	52.2	50.2
Employment			
Employed Full-Time	61%	**63%**	60%
Employed Part-Time/Student	15%	15%	16%
Self Employed	1%	1%	1%
Retired	16%	16%	17%
Other	7%	5%	8%
Household Income			
< $15,000	4%	3%	4%
$15,000 to $35,000	10%	9%	10%
$35,000 to $50,000	11%	11%	11%
$50,000 to $75,000	21%	23%	20%
$75,000 to $100,000	19%	19%	18%
$100,000 to $150,000	20%	21%	20%
$150,000 Plus	15%	14%	16%
Median	$80,703	$80,663	$80,732

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Route Level Analysis: WSF Rider Demographics

Rider demographics vary significantly by route. Where rider demographics on a specific route vary significantly from the general profile of riders on WSF, these differences for each route are itemized below. In addition, where these demographics vary by season within the route, these differences are highlighted. As a comparison, the following table shows the average demographics for the WSF and difference by winter and summer ridership.

	All Riders (n = 13,130)	Winter (n = 5,471)	Summer (n = 7,659)
% Women	52%	51%	53%
Median Age	51.0	52.2	50.2
% Employed Full-Time	61%	63%	60%
% Employed Part-Time	15%	15%	16%
% Retired	16%	16%	17%
Median Household Income	$80,703	$80,663	$80,733

Seattle / Bainbridge

Seattle / Bainbridge riders are somewhat more likely to be women (53%) than men (47%). This varies, however, by season.

- Seattle / Bainbridge winter riders are equally likely to be men (50%) as women (50%). In the summer season, Seattle / Bainbridge riders are more likely to be women (55%) than men (45%).

Those riding this route have the highest median income ($92,585).

- Forty-four percent (44%) of Seattle / Bainbridge riders report household incomes in excess of $100,000 per year compared to 35 percent of WSF riders generally. One out of five (21%) have household incomes of $150,000 or more compared to 15 percent of riders generally.

Sixty-three percent (63%) of Seattle / Bainbridge riders are employed full-time, somewhat higher than the 61 percent of WSF riders generally.

- Significantly more winter Seattle / Bainbridge riders are employed full-time compared with summer riders on this route – 66 percent compared to 60 percent, respectively.

Seattle / Bremerton

Those riding the Seattle / Bremerton route are, on average, younger than those on other routes with a median age of 44.

- Thirty percent (30%) are between the ages of 18 and 34 compared with 17 percent of WSF riders generally. Conversely, only 26 percent of Seattle / Bremerton riders are 55 and older compared with 40 percent of WSF riders overall.

Those riding the Seattle / Bremerton route are the least affluent, with a median self-reported household income of $68,235.

- Nearly three out of five (57%) Seattle / Bremerton riders have household incomes of less than $75,000.

While the majority (69%) of Seattle / Bremerton riders are employed full-time, an above-average percentage of Seattle / Bremerton riders (8%) are students (included in the part-time category), explaining in part the lower age and income. The percentage of riders who are employed full-time is higher among Seattle / Bremerton riders than any route. In addition, 2 percent of Seattle / Bremerton riders are military personnel.

Edmonds / Kingston

With the exception of age, Edmonds / Kingston riders match the profile of the general WSF rider.

- Riders on this route are older than average – median age is 52.6. Forty-four percent (44%) are 55 and older; 18 percent are 65 and older.
- Consistent with this age distribution, an above-average percentage (20%) of Edmonds / Kingston riders are retired.

Mukilteo / Clinton

Riders on the Mukilteo / Clinton route are similar to those on the Edmonds / Kingston route. Again, with the exception of age, Mukilteo / Clinton riders match the profile of the general WSF rider.

- Mukilteo / Clinton riders are older than average; 28 percent are 55 to 64 and 19 percent are 65 and older. Twenty-one percent (21%) are retired.
- This is notable among winter riders. Nearly three out of five (57%) Mukilteo / Clinton winter riders are 55 and older compared to 40 percent of summer riders. Similarly, 26 percent of winter riders are retired compared to 16 percent of summer riders.
- Reflecting the increase in summer recreational travel, the Mukilteo / Clinton route experiences a significant jump in younger riders during the summer months – more than one-third (36%) of summer riders are between 16 and 44 compared to 20 percent of winter riders.

Fauntleroy / Vashon

Riders on the Fauntleroy / Vashon route are not distinguished from the profile of WSF riders generally by any notable demographic differences. The one exception is employment status.

- Eighty percent (80%) of Fauntleroy / Vashon riders are employed compared to 77 percent of WSF riders generally (this includes students who are also employed and those who are self-employed). Of note, is the somewhat higher-than-average percentage of Fauntleroy / Vashon riders who are employed part-time – 14 percent compared to 10 percent for riders generally.

There are some differences by season on the Fauntleroy / Vashon route that are noteworthy.

- Winter riders are more likely to be women (60%) than men (40%). In the summer months, this difference is not as dramatic, and riders are somewhat more likely to be men (53%) than women (47%).
- There is a significant increase in the percentage of summer riders that are retired – 17 percent in the summer compared to 8 percent among winter riders.
- Finally, summer riders on this route are more affluent than winter riders – median income of $82,122 for summer riders compared to $71,480 for winter riders. Seventeen percent (17%) of summer riders on this route report household incomes in excess of $150,000 compared to just 9 percent of winter riders.

Fauntleroy / Southworth

With the exception of employment status, riders on this route generally mirror the typical WSF riders.

- Fauntleroy / Southworth riders are second only to Seattle / Bremerton in the percentage of riders employed full-time (67%). This is true in both winter and summer months.

Point Defiance / Tahlequah

While the table suggests that Point Defiance / Tahlequah riders are different on some demographic characteristics from the general profile provided for WSF, none of these differences are statistically significant. This could reflect the relatively small sample size on this route.

Keystone / Port Townsend

Reflecting the nature of this route (high recreational use and personal travel such as shopping), Keystone / Port Townsend riders are the oldest riders.

- One out of four (24%) are 65 and older; average (median) age is 55. There are no differences between seasons.
- Overall, 27 percent of riders on this route are retired. This, however, is driven by summer riders – 31 percent of whom are retired. In the winter season, only 20 percent of Keystone / Port Townsend riders are retired.

Anacortes / San Juans

Perhaps a surprise is the finding that Anacortes / San Juan riders match the profile of WSF riders generally.

- Anacortes / San Juan riders are somewhat younger than WSF riders. Their average (median) age is 49; an above-average percent (16%) of riders on this route is between the ages of 25 and 34.
- Riders on this route are relatively affluent. Median self-reported household income by riders on this route is $88,053. One out of four (25%) riders on this route reports household incomes of $150,000 or greater – the highest of any route.

Also, and perhaps a surprise on this route, is the finding that there are few significant differences between winter and summer riders.

- Twice as many summer riders on this route are retired compared with winter riders – 19 percent compared to 10 percent, respectively.

Anacortes / Sidney

Of the primarily recreational routes, Anacortes / Sidney riders are the second most affluent (median income of $91,780).

Table 2: WSF Rider Demographics by Route

	All Riders (n=13,130)	SEA/ BAIN (n=4,600)	SEA/ BRE (n=1,567)	EDM/ KIN (n=2,413)	MUK/ CLI (n=1,789)	FAU/ VAS (n=503)	FAU/ SOU (n=547)	PTD/ TAH (n=147)	KEY/ PTT (n=432)	ANA/ SAN (n=923)	ANA/ SID (n=209)
Gender											
Male	48%	47%	49%	49%	49%	48%	52%	43%	48%	44%	45%
Female	52	53	51	51	51	52	48	57	52	56	55
Age											
16 – 17	1%	1%	1%	1%	1%	2%	<1%	<1%	1%	1%	<%
18 – 24	6	6	**12**	5	5	4	4	5	5	6	11
25 – 34	11	10	**18**	12	9	7	**14**	3	7	**16**	13
35 – 44	17	18	19	14	15	19	15	15	12	17	19
45 – 54	25	26	23	24	23	30	26	30	25	23	26
55 – 64	26	27	**19**	26	**28**	27	27	32	26	23	16
65 Plus	14	13	**7**	**18**	**19**	11	13	15	**24**	14	15
Median	51.0	50.9	**44.4**	52.6	53.6	50.9	51.0	53.7	54.8	49.2	47.6
Employment											
Full-Time	61%	63%	**69%**	58%	56%	60%	**67%**	63%	48%	59%	54%
Part-Time / student	15	15	14	14	17	18	12	15	16	16	18
Self-Employed	1	1	<1	1	1	2	1	<1	1	1	0
Retired	16	14	8	**20**	**21**	13	15	16	**27**	16	19
Other	7	7	8	7	6	7	5	5	8	7	9
Household Income											
< $15,000	4%	4%	**7%**	2%	3%	4%	2%	2%	5%	3%	10%
$15,000 - $35,000	10	6	**14**	10	9	12	10	11	11	11	5
$35,000 - $50,000	11	9	**13**	12	12	13	16	10	12	11	9
$50,000 - $75,000	21	18	23	24	26	20	25	25	22	17	14
$75,000 - $100,000	19	19	19	20	16	17	22	21	22	15	16
$100,000 - $150,000	20	**23**	17	20	20	21	16	21	17	18	23
$150,000 Plus	15	**21**	7	12	14	14	10	11	10	**25**	22
Median	$80,703	$92,585	$68,235	$77,582	$76,087	$77,350	$72,567	$78,394	$73,420	$88,053	$91,780

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Key Findings – Length of Time Riding and Proximity to Ferry Terminal near Home

Summary – Length of Time Riding and Proximity to Ferry Terminal near Home

Length of Time Riding

The majority (60%) of all WSF winter riders have been riding the ferries more than 10 years – or an average of 11.7 years. This could suggest relatively well-engrained travel patterns that may be difficult for riders to change as well as suggesting that they have no choice but to take the ferry.

Perhaps reflecting the change in the makeup of the population in the community, the Seattle / Bremerton route has the greatest number of new riders. Nearly one out of four (23%) Seattle / Bremerton winter riders have been riding for 2 or fewer years.

On the other hand, winter riders on the Anacortes / San Juans and Point Defiance / Tahlequah routes represent WSF's longest tenured riders. Winter riders on Edmonds / Kingston and Mukilteo / Clinton have also been riding longer than riders on other routes.

Winter vehicle drivers and passengers are more tenured riders than winter walk-on passengers. Nearly two out of three vehicle drivers (65%) and vehicle passengers (63%) have been riding more than 10 years compared to 53 percent of walk-on passengers. Again, this could suggest relatively well-engrained travel patterns among the critical segment, vehicle drivers, which may be difficult to change. Note that vehicle drivers and passengers are also older than walk-on passengers – average age of vehicle drivers and passengers is 53 to 54 compared to 48 for walk-on passengers.

Commuters have less tenure riding the ferry than do non-commuters. Of note, 30 percent of winter vehicle drivers who use the ferries to commute have been riding the ferries for five or fewer years. This may represent an opportunity for modification of travel behaviors within this group of riders.

Proximity to Ferry Terminal

The distance winter riders travel from home to the ferry terminal varies widely and is primarily related to boarding mode and trip purpose. However, the majority (59%) of winter riders travel ten or fewer miles.

- As would be expected, winter walk-on passengers live closer to the ferry terminal they typically use than do winter vehicle drivers and vehicle passengers. Nearly half (47%) of all winter walk-on passengers live within five miles of the ferry terminal. Twenty-three percent (23%) of winter walk-on passengers who walk to the ferry live within a mile of the terminal they use most often.

Winter riders using the Anacortes / San Juans and, to a lesser extent, Port Townsend / Keystone ferries travel the farthest from their home to the terminal. This is primarily a function of their trip purpose.

- Seventy-two percent (72%) of winter riders on the Anacortes / San Juans ferry and 48 percent of those on the Keystone / Port Townsend ferry who are traveling for recreational purposes, drive more than 20 miles from their home to the terminal. Seventy-three percent (73%) of winter riders on the Keystone / Port Townsend route who are traveling for personal and shopping trips travel more than 20 miles from their home to the terminal. This reflects the relatively large numbers of non-resident visitors using those two routes.

Detailed Findings – Number of Years Riding

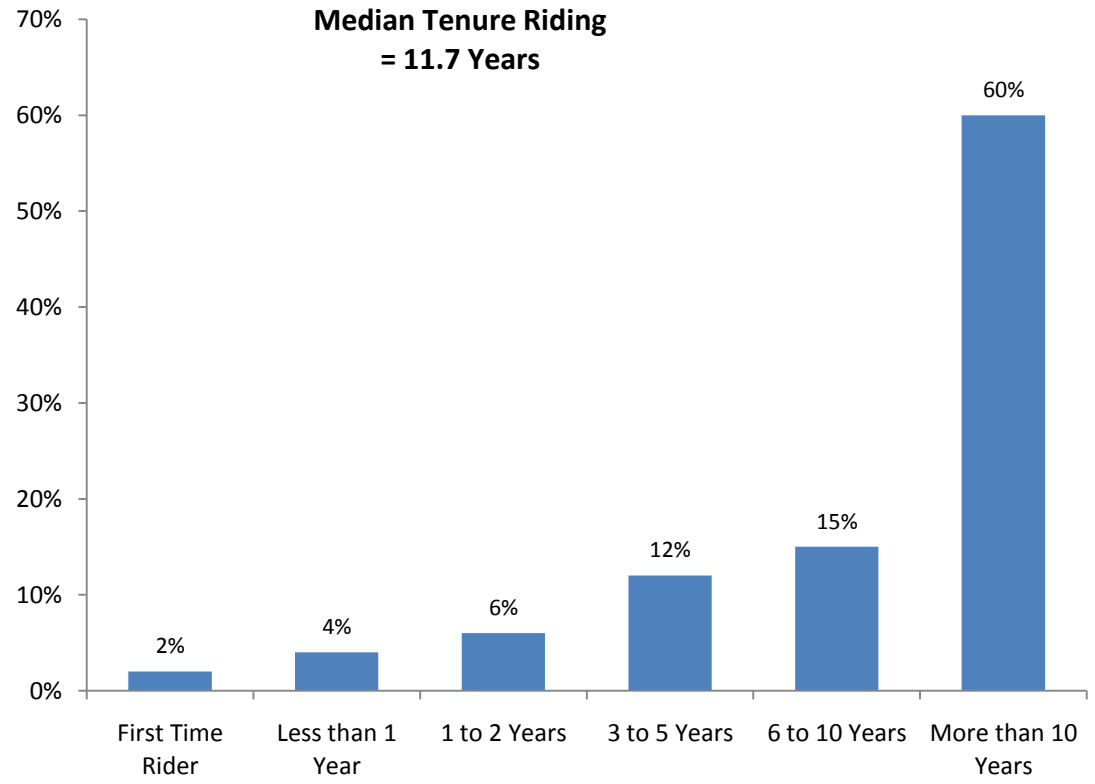
Respondents completing the March On-Board Survey were asked how many years they have been riding Washington State Ferries.

All Winter Riders: Tenure (Number of Years) Riding WSF

Three out of five (60%) winter riders have been riding the ferries more than 10 years – or an average of 11.7 years.

This could suggest relatively well-engrained travel patterns that may be difficult for riders to change as well as meaning they "have" to take the ferry.

Figure 1: Tenure (Number of Years) Riding WSF



Question: How many years have you been riding the ferries?
Base: All Winter (March) Respondents (n = 5,471)

As the adjacent table shows, there are some significant differences in the characteristics of long-term (those riding 10 or more years) and newer riders.

- **New Riders (2 or Fewer Years):** Potentially a factor in their tenure riding is the finding that new riders are younger than WSF riders generally. Three out of five (61%) new riders are less than 45 years old – on average new riders are 41 years of age. They are the most likely segment to be employed full-time (69%). However, a significant segment (10%) are students. New riders are the least affluent segment. One out of three new riders (32%) have household incomes below $50,000 – with a median household income of $70,485.
- **Medium-Term Riders (3 to 10 Years):** This segment is the most diverse, with age spans ranging from 35 to 65 plus. The average age of this segment is 49. While the majority (65%) of medium-term riders are employed full-time, a significant number (15%) are retired. This segment does not differ from riders generally in terms household income but is more affluent than new riders.
- **Long-Term Riders (More than 10 Years):** Again a factor in their tenure riding is the finding that this is the oldest segment with an average age of 55. More than three out of four long-term riders (77%) are 45 and older. This segment generally matches the income level of all winter riders; again this segment is also more affluent than new riders.

Table 3: Demographics of WSF March Customers based on Tenure Riding

	All Winter Riders (n = 5,471)	Less than 2 Years (n = 709)	3 to 10 Years (n = 1,524)	More than 10 Years (n = 2,995)
Gender				
Male	49%	48%	48%	50%
Female	51	52%	52	50
Age				
16 – 24	5%	**10%**	5%	5%
25 – 34	10	**25**	11	7
35 – 44	16	**26**	22	11
45 – 54	26	20	25	**27**
55 – 64	28	14	24	**32**
65 and over	15	6	11	**18**
Median	52.5	40.8	49.1	55.3
Employment				
Full-Time	63%	**69%**	**65%**	60%
Part-Time	9	**6**	**8**	11
Student	5	**10**	**6**	4
Self-Employed	1	**1**	**1**	1
Retired	16	**6**	**15**	18
Other	5	**8**	**6**	5
Household Income				
< $50K	23%	**32%**	23%	21%
$50K - $75K	23	22	23	23
$75K - $100K	19	17	19	19
$100K - $150K	21	18	20	22
$150K plus	14	11	16	16
Median	$80,663	$70,485	$81,440	$82,727

Boarding Mode Results: Tenure (Number of Years) Riding WSF

Winter vehicle drivers and passengers have been riding the ferries longer than winter walk-on passengers.

- Sixty-five percent (65%) of winter vehicle drivers and 63 percent of winter vehicle passengers have ridden the ferries for more than ten years compared to 53 percent of winter walk-on passengers.

As noted earlier, this could suggest relatively well-engrained travel patterns among these two key segments, notably vehicle drivers, which may be difficult to change.

Table 4: Tenure Riding by Boarding Mode

	All Winter Riders (n = 5,471)	Vehicle Driver (n = 2,358)	Vehicle Passenger (n = 618)	Walk-On Passenger (n = 2,495)
First Time Rider	2%	1%	2%	2%
Less than 1 Year	4%	4%	3%	6%
1 to 2 Years	6%	6%	5%	7%
3 to 5 Years	12%	11%	12%	14%
6 to 10 Years	15%	13%	14%	17%
More than 10 Years	60%	**65%**	**63%**	53%
Median	11.7	12.3	12.1	10.6

Question: How many years have you been riding the ferries?

Route Level Results: Tenure (Number of Years) Riding WSF

The **Seattle / Bremerton** route has the greatest number of new riders.

- On average, Seattle / Bremerton winter riders have been riding for just under nine years. Nearly one out of four (23%) Seattle / Bremerton winter riders have been riding for 2 or fewer years.
- At the same time, however, an above-average percentage (21%) of winter Seattle / Bremerton riders have been riding between six and ten years. This could reflect the growth in that region in recent years – attracting new riders to the system while at the same time retaining the longer-term riders.

On the other hand, winter riders on the **Anacortes / San Juans** and **Point Defiance / Tahlequah** represent WSF's longest tenured riders.

- Nearly three out of four (73%) Point Defiance / Tahlequah winter riders have been riding for more than 10 years. On average, they have ridden 13.1 years.
- Seventy-two percent (72%) of Anacortes / San Juans winter riders have been riding for more than 10 years. On average, they have ridden 13.1 years.

The **Edmonds / Kingston** and, to a somewhat lesser extent, **Mukilteo / Clinton** routes also have an above-average percentage of long-term riders.

- Two-thirds (66%) of Edmonds / Kingston winter riders have been riding more than ten years. On average, Edmonds / Kingston winter riders have been riding 12.4 years.
- Sixty-four percent (64%) of Mukilteo / Clinton winter riders have been riding more than ten years. On average, they have been riding 12.2 years.

Table 5: Tenure Riding by Route

	Winter Riders (n=5,471)	SEA/ BAIN (n=2,060)	SEA/ BRE (n=758)	EDM/ KIN (n=996)	MUK/ CLI (n=646)	FAU/ VAS (n=251)	FAU/ SOU (n=268)	PTD/ TAH (n=93)	KEY/ PTT (n=128)	ANA/ SAN (n=271)
First Time Rider	2%	2%	**3%**	1%	0%	<1%	2%	2%	2%	5%
Less than 1 Year	4%	4%	**9%**	4%	3%	4%	8%	0%	8%	2%
1 to 2 Years	6%	7%	**11%**	5%	6%	6%	6%	1%	8%	4%
3 to 5 Years	12%	13%	13%	10%	14%	14%	12%	13%	11%	8%
6 to 10 Years	15%	15%	**21%**	14%	14%	17%	13%	11%	12%	8%
More than 10 Years	60%	59%	43%	**66%**	64%	58%	59%	**73%**	59%	**72%**
Median	11.7	11.5	8.6	**12.4**	12.2	11.4	11.5	**13.1**	11.5	**13.1**

Question: How many years have you been riding the ferries?

Time of Day / Week Travel Results: Tenure (Number of Years) Riding WSF

Winter weekend riders are the longest tenured riders on the system.

- More than two out of three (68%) winter weekend riders have been riding WSF for more than ten years.

Peak weekday winter riders are more diverse. While more than half (55%) of all peak weekday winter riders have been riding for more than ten years, 32 percent have been riding between three and ten years.

- Peak weekday winter walk-on passengers are more likely than peak weekday winter vehicle drivers to be newer riders. Sixty-three percent (63%) of peak weekday winter vehicle drivers have been riding the ferries for more than 10 years. By comparison, half (50%) of peak weekday winter walk-on passengers have been riding that long.

Table 6: Tenure Riding by Time of Day / Week Travel and Boarding Mode

	All Winter Riders (n = 5,471)	Total Peak Weekday (n = 2,987)	Peak Weekday			Total Off-Peak Weekday (n = 1,297)	Off-Peak Weekday			Total Weekend (n = 1,187)	Weekend		
			Vehicle Driver (n = 1,156)	Vehicle Passenger (n = 239)	Walk-On (n = 1,592)		Vehicle Driver (n = 619)	Vehicle Passenger (n = 157)	Walk-On (n = 521)		Vehicle Driver (n = 583)	Vehicle Passenger (n = 222)	Walk-On (n = 382)
First Time Rider	2%	1%	1%	4%	0%	2%	1%	2%	4%	2%	1%	1%	4%
Less than 1 Year	4%	5%	4%	5%	6%	5%	5%	3%	8%	3%	3%	2%	4%
1 to 2 Years	6%	7%	6%	8%	8%	7%	7%	4%	9%	4%	5%	3%	4%
3 to 5 Years	12%	15%	13%	18%	15%	12%	11%	12%	14%	10%	8%	9%	12%
6 to 10 Years	15%	17%	14%	11%	21%	14%	13%	17%	16%	13%	14%	14%	12%
More than 10 Years	60%	55%	63%	54%	50%	59%	63%	61%	50%	**68%**	69%	70%	64%
Median	11.7	11.0	12.0	9.8	10.8	11.5	12.1	11.8	9.8	12.7	12.8	12.9	12.2

Question: How many years have you been riding the ferries?

Other Significant Findings: Tenure (Number of Years) Riding WSF by Trip Purpose

Perhaps a surprise is the finding that commuters are newer riders than are non-commuters. This could in part reflect their age. However, they may also be newer residents of the communities served by the ferries.

- More than one-third (35%) of winter commuters have been riding for three to ten years; an additional 16 percent have been riding for less than three years. Winter commuters' average tenure riding is slightly less than ten years (9.7). All winter non-commuter segments have been riding an average of 12 or more years.
- Of note, while the majority (53%) of winter vehicle drivers who use the ferry to commute to work or school are long-term riders, an above average percentage (30%) has been riding 5 or fewer years. This segment may be more willing to change their travel behaviors.
- Eight percent (8%) of winter recreational riders report that they are first-time riders.

Similarly, WSF's most frequent riders have been riding for fewer years than those that ride less frequently.

- Over half of winter riders who take 25 or more one-way trips monthly have been riding for ten or fewer years – 52 percent of those who take 25 to 44 one-way trips monthly and 47 percent of those taking 45 or more one way trips monthly.
- Two-thirds (65% to 67%) of winter riders taking fewer than 25 trips monthly have been riding for more than ten years.

Table 7: Tenure Riding by Trip Purpose

Years Riding	All Winter Riders (n = 5,471)	Commute (n = 2,547)	Personal / Shopping (n = 942)	Recreation (n = 656)	Social (n = 693)	Other (n = 505)
< 3	13%	**8%**	15%	16%	7%	15%
3 – 10	27%	**35%**	23%	22%	24%	22%
> 10	60%	49%	68%	63%	70%	63%
Median	11.7	**9.7**	12.7	12.0	12.9	12.0

Question: How many years have you been riding the ferries?

Table 8: Tenure Riding by Frequency of Riding

Years Riding	All Winter Riders (n = 5,471)	< 7 (n = 1,593)	7 - 24 (n = 1,412)	25 - 44 (n = 1,490)	45 + (n = 932)
< 3	13%	12%	8%	**17%**	**15%**
3 – 10	27%	23%	24%	**35%**	**32%**
> 10	60%	65%	67%	48%	54%
Median	11.7	12.4	12.5	9.5	10.7

Question: How many years have you been riding the ferries?

Detailed Findings – Distance from Home to Terminal

Respondents completing the March On-Board Survey were asked how far in miles the ferry terminal they typically use is from their home. Respondents recorded their answer as the actual number of miles traveled; these were then grouped into categories for analysis.

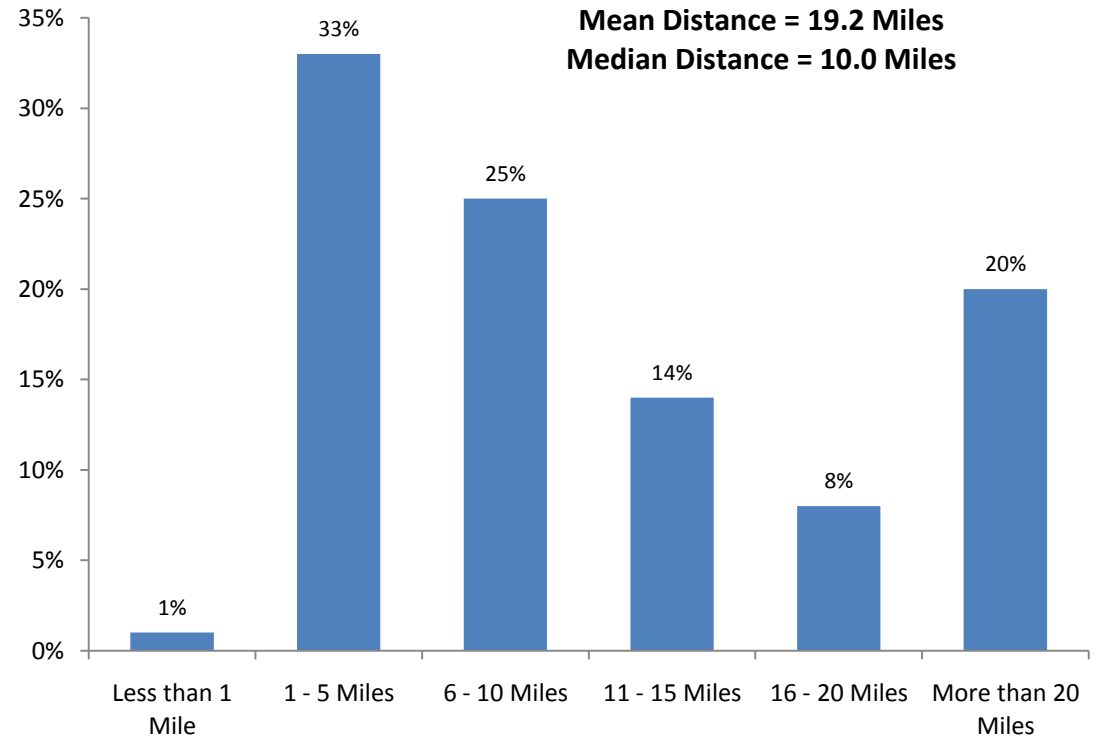
All Winter Riders: Distance from Home to Terminal

The distance winter riders travel from home to ferry terminal varies widely. However, the majority (59%) of winter riders travel ten or fewer miles.

- Breaking down the 20 percent who travels more than 20 miles from home to the ferry terminal:
  - 22 percent travels 21 to 25 miles;
  - 19 percent travels 26 to 30 miles; and
  - 60 percent travels more than 30 miles.

A significant number of those reporting that they drive more than 30 miles from their home to the ferry terminal put numbers in excess of 100 miles, suggesting that they may be logging distance for recreational or other trips from their home.

Figure 2: Distance from Home to Terminal



Question: About how far in miles is the ferry terminal you typically use from your home?
Base: All Winter (March) Respondents (n = 5,471)

Boarding Mode Results: Distance from Home to Terminal

As would be expected, winter walk-on passengers live closer to the ferry terminal they typically use than do winter vehicle drivers and vehicle passengers.

- Forty-seven percent (47%) of winter walk-on passengers live within five miles of the ferry terminal.
- When looking only at those winter walk-on passengers who walk to the ferry, more than half (54%) live one mile or less from the ferry. An additional 13 percent lives within two miles.

Table 9: Walk-on Passengers' Proximity to Ferry Terminal by How They Get to the Terminal

	Bicycle (n = 108)	Walk (n = 326)	Dropped Off (n = 366)	Transit (n = 642)	Drive and Park (n = 954)
1 Mile or Less	17%	**54%**	11%	9%	7%
2 to 5 Miles	46%	22%	44%	40%	28%
6 to 10 Miles	28%	7%	27%	24%	25%
11 to 15 Miles	8%	5%	5%	13%	14%
16 to 20 Miles	1%	5%	4%	8%	9%
> 20 Miles	0%	**8%**	10%	7%	17%
Median	5.0	**1.0**	5.0	6.0	8.0
Mean	4.9	8.4	11.5	9.8	17.4

Question: About how far in miles is the ferry terminal you typically use from your home?
Question: How did you get from where you started your trip (home) to the ferry terminal?
Base: Winter Walk-On Passengers; excludes those who get to ferry terminal by means other than categories specified above.

Table 10: Proximity to Ferry Terminal by Boarding Mode

	All Winter Riders (n = 5,471)	Vehicle Driver (n = 2,358)	Vehicle Passenger (n = 618)	Walk-On Passenger (n = 2,495)
< 1 Mile	1%	0%	0%	**2%**
1 – 5 Miles	33%	27%	25%	**45%**
6 – 10 Miles	25%	26%	24%	23%
11 – 15 Miles	14%	**16%**	**15%**	11%
16 – 20 Miles	8%	**8%**	**8%**	7%
> 20 Miles	20%	**23%**	**27%**	12%
Median	10.0	10.0	11.0	6.0
Mean	19.2	21.5	24.2	13.2

Question: About how far in miles is the ferry terminal you typically use from your home?

Route Level Results: Distance from Home to Terminal

Most likely reflecting the nature of travel, winter riders on the Anacortes / San Juans and Keystone / Port Townsend ferries travel the furthest from their home to the ferry terminal, with half of all winter riders on these routes traveling more than 20 miles to the terminal.

- For those traveling for recreational purposes only, seventy-two percent (72%) of winter recreational riders on the Anacortes / San Juans ferry and 48 percent of those on the Keystone / Port Townsend ferry drive more than 20 miles from their home to the terminal.
- For those traveling for personal and shopping trip purposes only, seventy-three percent (73%) of those on the Keystone / Port Townsend route are traveling more than 20 miles from their home to the terminal.

Most likely reflecting the large percentage of winter walk-on passengers on the Seattle / Bremerton route (64% of all riders) and on the Seattle / Bainbridge route (47% of all riders), an above-average number of these winter riders travel five or fewer miles from their home to the ferry terminal. As noted on the previous page, over half (54%) of walk-on riders who walk to the ferry live within a mile of the terminal; 49 percent of those who take transit live within five miles.

- Nearly half (49%) of Seattle / Bremerton and 46 percent of Seattle / Bainbridge winter riders travel five or fewer miles to the terminal.
- For those that walk onto the ferry, fifty-five percent (55%) of Seattle / Bremerton and 54 percent of Seattle / Bainbridge winter riders live five or fewer miles from the ferry terminal.

An above-average number of Fauntleroy / Vashon and Fauntleroy / Southworth winter riders live within one and ten miles of the ferry terminal they use most often – 78 and 75 percent, respectively.

Table 11: Proximity to Ferry Terminal by Route

	Winter Riders (n=5,471)	SEA/ BAIN (n=2,060)	SEA/ BRE (n=758)	EDM/ KIN (n=996)	MUK/ CLI (n=646)	FAU/ VAS (n=251)	FAU/ SOU (n=268)	PTD/ TAH (n=93)	KEY/ PTT (n=128)	ANA/ SAN (n=271)
< 1 Mile	1%	**1%**	**1%**	<1%	1%	0%	1%	2%	0%	3%
1 – 5 Miles	33%	**45%**	**48%**	22%	16%	**41%**	**39%**	33%	20%	19%
6 – 10 Miles	25%	22%	24%	20%	29%	**37%**	**36%**	36%	8%	13%
11 – 15 Miles	14%	11%	11%	18%	15%	21%	9%	18%	9%	12%
16 – 20 Miles	8%	7%	6%	12%	12%	<1%	5%	0%	14%	4%
> 20 Miles	20%	15%	9%	27%	27%	<1%	10%	11%	50%	49%
Median	10.0	6.0	6.0	13.0	12.0	7.0	6.0	8.0	20.0	20.0
Mean	19.2	17.7	11.8	22.6	17.2	7.0	10.8	19.1	37.0	53.7

Question: About how far in miles is the ferry terminal you typically use from your home?

Time of Day / Week Travel Results: Distance from Home to Terminal

Peak weekday and, to a somewhat lesser extent, off-peak weekday winter riders live closer to the ferry terminal they use most often than do winter weekend riders.

- Forty-one percent (41%) of peak weekday winter riders and 33 percent of off-peak weekday winter riders live within five miles of the ferry terminal they use compared to 26 percent of weekend riders. On the other hand, 26 percent of winter weekend riders live more than 20 miles from the terminal they use.
- This is notable among peak weekday winter walk-on passengers – 52 percent lives within five miles of the terminal they use.

Table 12: Proximity to Ferry Terminal by Time of Day / Week Travel and Boarding Mode

	All Winter Riders (n = 5,471)	Total Peak Weekday (n = 2,987)	Peak Weekday: Vehicle Driver (n = 1,156)	Peak Weekday: Vehicle Passenger (n = 239)	Peak Weekday: Walk-On (n = 1,592)	Total Off-Peak Weekday (n = 1,297)	Off-Peak Weekday: Vehicle Driver (n = 619)	Off-Peak Weekday: Vehicle Passenger (n = 157)	Off-Peak Weekday: Walk-On (n = 521)	Total Weekend (n = 1,187)	Weekend: Vehicle Driver (n = 583)	Weekend: Vehicle Passenger (n = 222)	Weekend: Walk-On (n = 382)
< 1 Mile	1%	**1%**	<1%	1%	**2%**	1%	1%	0%	1%	<1%	0%	0%	1%
1 – 5 Miles	33%	**40%**	31%	28%	**50%**	32%	26%	28%	45%	26%	24%	22%	34%
6 – 10 Miles	25%	24%	27%	18%	23%	26%	27%	29%	23%	24%	25%	24%	24%
11 – 15 Miles	14%	14%	17%	16%	11%	14%	16%	12%	12%	14%	15%	16%	11%
16 – 20 Miles	8%	7%	6%	9%	6%	8%	9%	8%	7%	9%	9%	8%	9%
> 20 Miles	20%	15%	19%	27%	8%	19%	22%	23%	11%	**26%**	27%	30%	22%
Median	10.0	7.0	10.0	11.0	5.0	10.0	10.0	10.0	6.0	10.0	12.0	12.0	10.0
Mean	19.2	16.5	18.9	25.8	11.7	18.5	19.8	25.7	11.8	23.3	26.9	22.3	18.3

Question: About how far in miles is the ferry terminal you typically use from your home?

Key Findings – Travel Behavior

Summary – Travel Behavior

Trip Purpose

WSF serves a broad base of riders traveling for many different types of trips. In any given week, the majority of all WSF riders (70%) are taking a non-commute trip. This result has been a surprise to some as it is a common perception that the majority of riders are commuters. A common theme in all the focus groups was that "commuters form the backbone of the system." There are significant variations between both seasons and routes.

- The percentage of commute trips varies significantly by season. However, in both winter and summer, the percentage of non-commute trips is larger than the percentage of commute trips. In the winter, the percentage taking non-commute trips is 64 percent. In the summer, this increases to 75 percent. The mix of trip types by route is discussed in detail on Page xx.
- The mix of non-commute trips also varies by season. In the winter, the majority of non-commute trips are personal and shopping trips (34%) followed by trips to visit friends and family (27%). Recreation trips represent 22 percent of winter non-commute trips.
- In the summer, non-commute travel is clearly dominated by recreation trips; 44 percent of all summer non-commute trips are recreation.

Three out of ten (30%) WSF riders report that the purpose of the trip for which they were sampled is to commute to work or school. This figure jumps to 41 percent of all weekday trips – 48 percent in the winter months and 35 percent in the summer.

- The percentage of peak weekday commute trips (48%) made during the winter is lower than what was indicated in the WSF 2006 Origin & Destination Survey conducted during a comparable non-summer travel period. The WSF survey found that 58 percent of weekday trips were commute trips and continues the downward trend in weekday commute trips noted from the 1993 O&D Survey when 68 percent of all trips were commute trips. This is consistent with other transportation research that shows that gains in ridership has come from an increase in the total number of riders riding for a more diverse mix of trips rather than an increase in the number of trips frequent riders take.

For most riders, the trip on which they were sampled represents 75 percent of the trips they take in a typical month. This varies somewhat by route and is related somewhat to riders' ability to get to where they want to go using other modes and/or to the extent to which they take additional trips.

- Fauntleroy / Vashon and, to a somewhat lesser extent Point Defiance / Tahlequah riders are WSF's most frequent riders (24.6 and 24.0 one-way trips per month, respectively).
  - Riders on these routes are the most likely to take trips other than their sampled trip. Thirty percent (30%) of Fauntleroy / Vashon and 27 percent of Point Defiance / Tahlequah riders take trips on the ferry for purposes other than their sampled trip. These findings – both the frequency of riding and the fact that they take a greater percentage of trips for trips other than their sampled trip – most likely reflects the fact that these routes serve an island community where the ferry is their only transportation off the island.

- Riders on two other routes – Seattle / Bremerton and Fauntleroy / Southworth – are less likely to use the ferry for anything other than their sampled trip. Both these routes can access shopping and other services near where they live or by driving over the Tacoma Narrows Bridge.
  - Seattle / Bremerton riders are relatively frequent riders, averaging more than 21 one-way rides per month. Eighty percent (80%) of their trips are for their sampled trip.
  - Fauntleroy / Southworth are also relatively frequent riders, averaging 19 one-way trips per month. Eighty-two percent (82%) of their trips are for their sampled trips.

Frequency of Riding

Contrary to the common perception, the majority of WSF riders take fewer than 8 to 9 round trips per month on the ferry. On average, WSF riders take 17.1 one-way rides per month (or the equivalent to 8 to 9 round trips). This finding is consistent with and supports the finding noted above that the majority of WSF riders on any given day are taking a trip other than a commute trip.

- Forty-four percent (44%) of all WSF riders take fewer than seven one-way rides per month. These occasional riders average 2.5 one-way trips per month or about one round trip.
- An additional 28 percent of all riders take 7 to 24 one-way trips per month. Riders taking between 7 and 24 one-way trips per month average 14.1 one-way trips or approximately seven round trips.

As expected given the nature of summer travel on WSF, much of the increase in summer ridership is comprised of riders taking fewer than seven one-way trips per month.

- Over half (51%) of all summer riders takes 6 or fewer one-way trips per month. Eighteen percent (18%) of all summer riders take one or fewer one-way trips monthly – that is, they are relatively infrequent riders. An additional 12 percent of summer riders take two (2) one-way trips monthly or the equivalent of one round trip per month.

WSF's most frequent riders are walk-on passengers. This is primarily a reflection of the finding that a significant percentage (46%) of walk-on passengers are commuters.

- More than two out of five (41%) walk-on passengers take 25 or more one-way trips per month; they average just over 22 one-way trips / month.
- By way of contrast, only one out of four (25%) vehicle drivers take 25 or more one-way trips. One-third (32%) takes between 7 and 24 trips per month; 43 percent takes less than seven one-way trips / month.
- On average, vehicle drivers take 16 one-way trips per month. It is noteworthy that the majority of riders drive onto the ferry (as a driver or a passenger in a vehicle). At the same time they average fewer trips per month. Therefore, to affect vehicle traffic on the ferry, it will be necessary to encourage a large number of drivers to make a reduction in the relatively few number of trips they take.
- Vehicle passengers are WSF's least frequent riders. Sixty-one percent (61%) of vehicle passengers take less than seven one-way trips per month. They average slightly more than 10 one-way trips per month. This may reflect the demographics of vehicle passengers –9 percent are 65 and older; 32 percent are retired or do not work outside the home.

There has been some concern that WSF riders are riding less because of fares. A question was included in the on-board survey to gauge the extent to which riders have increased or decreased the frequency with which they ride.

- Most (45%) riders say that the frequency with which they ride has not changed.
- Less than one out of four (23%) riders say they are riding less.
  - Sixty-two percent (62%) of riders (winter and summer) who say they are riding less cite a change in circumstances as the reason behind this decrease: change job / school (31%), retirement (14%), change in residence (15%), and/or other change in personal circumstances (11%).
  - Twenty-four percent (24%) of those who say they have decreased the frequency with which they ride cite the cost of fares as the reason they are riding less.
  - Six percent (6%) of those who ride less say they telecommute.
- One out of three (33%) of all WSF riders suggest they are riding more than in the past – 15 percent says it has increased significantly.

Primary Boarding Mode(s)

The qualitative (focus group) research clearly suggested that WSF riders may use multiple modes and/or drive on only when needed. Therefore, a key requirement in the on-board research was to determine the extent to which riders drive onto the ferry (as a driver or as a passenger in a vehicle) versus walk on or bicycle. Questions were included in the on-board surveys to estimate the percentage of time riders drive rather than walk onto the ferry.

Two out of five (41%) WSF riders drive onto the ferry (as a driver or as a passenger in a vehicle) 100 percent of the time. An additional 14 percent of WSF riders drive on more often than they walk on. Combined, therefore, the majority (55%) of WSF riders drive onto the ferry for all or most of their trips.

- Sixty-three percent (63%) of those who drove on the ferry for their sampled trip drive onto the ferry 100 percent of the time. For the trip on which they were sampled, 70 percent of vehicle drivers drive on for that trip 100 percent of the time.
- Routes that have a higher than average percentage of vehicle drivers and passengers who drive on most of the timeinclude:
  - Mukilteo / Clinton – 56 percent of all riders drive on 100 percent of the time; 17 percent drive on most of the time;
  - Keystone / Port Townsend – 54 percent of all riders drive 100 percent of the time; 12 percent drive on most of the time;
  - Edmonds / Kingston – 52 percent of all riders drive on 100 percent of the time; 12 percent drive on most of the time; and
  - Anacortes / San Juans – 48 percent of all riders drive on 100 percent of the time; 8 percent drive on most of the time.

It is noteworthy that on the two primarily recreational routes – Keystone / Port Townsend and Anacortes / San Juans – an above-average percentage of riders report getting onto the ferry by some "other" mode – 18 percent and 26 percent, respectively. This includes those with motorcycles and most likely recreational vehicles.

- Other rider segments that drive onto the ferry all or most of the time include:
  - Those traveling for non-commute trips – 63 percent drives on all or most of the time; and
  - Infrequent riders – 58 percent of those who take less than seven trips drive on all or most of the time; 67 percent of those taking 7 to 24 trips drive on all or most of the time.

Eleven percent (11%) of all WSF riders walk or bike onto the ferry 100 percent of the time. An additional 17 percent walk or bike on more often than they drive. Combined, therefore, 38 percent of all WSF riders walk or bike onto the ferry all or most of the time.

- Two routes have a higher than average percentage of primarily walk-on passengers. They include:
  - Seattle / Bremerton – 29 percent of all riders walk on 100 percent of the time; 22 percent walk on most of the time; and
  - Seattle / Bainbridge – 13 percent of all riders walk on 100 percent of the time; 29 percent walk on most of the time.
- Other rider segments that walk on more often than they drive include:
  - Commuters – 16 percent of all commuters walk on 100 percent of the time; 34 percent walk on most of the time;
  - Very frequent riders (those taking 45 plus one-way rides per month) – 47 percent walk on most of the time; 10 percent walk on 100 percent of the time; and
  - Frequent riders (those taking 25 to 44 one-way trips per month) – 35 percent walk on most of the time; 16 percent walk on 100 percent of the time.

Detailed Findings: Boarding Mode for Sampled Trip

The sample plan is based on a process that represents all WSF riders. Specifically, the sample plan ensures representation of riders on all routes, boarding by different modes, and at different times of the day or week. The data is weighted based on actual ridership figures for each sample period provided by WSF to ensure that results of the survey accurately represent the responses of all WSF riders according to the actual distribution of riders by route, boarding mode, and travel period. The following tables provide insights into actual ridership by boarding mode and time of day and week riders travel. These tables reflect actual ridership data from WSF.

All Riders: Boarding Mode for Sampled Trips – All Riders and by Season

The majority (64%) of WSF riders drive on the ferry for their sampled (primary) trip – 42 percent as a vehicle driver and 22 percent as a passenger in a vehicle.

- Significantly more winter riders are vehicle drivers (46%). While weekly ridership on WSF increases by 37 percent in the summer, the number of vehicle driver trips only increases by 16 percent.
- There is a significant increase in the percentage and the number of vehicle passengers in the summer months. This is due to a higher vehicle occupancy during the summer months – 1.7 pp / vehicle (winter) compared to 1.9 pp / vehicle (summer).

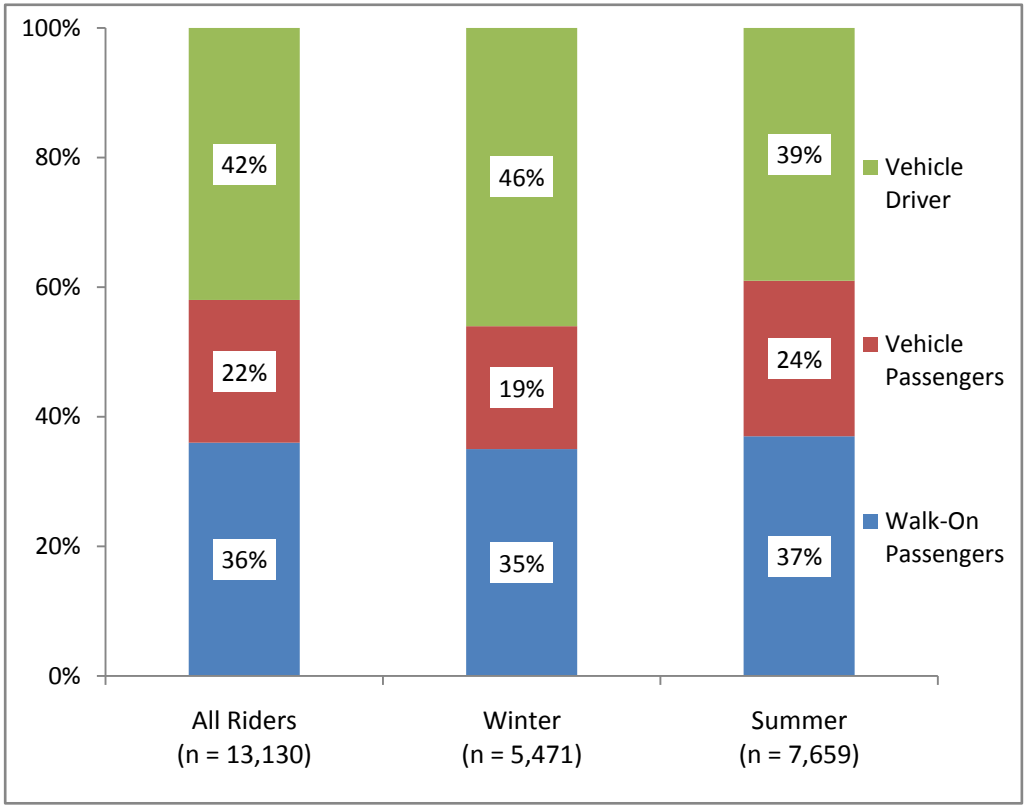
Thirty-six percent (36%) of all WSF riders walk onto the ferry.

- There is a slight increase in the percentage of walk-on passengers in the summer – from 35 percent to 37 percent. There is a 45 percent increase in the number of walk-on passenger trips in the summer.

Table 13: Number of Weekly Trips by Boarding Mode

	Winter	Summer	% Change
Vehicle Drivers	189,086	218,668	16%
Vehicle Passengers	78,920	137,463	74%
Walk-On Passengers	143,371	207,968	45%
Total	411,377	564,099	37%

Figure 3: Boarding Mode – Sampled Trip



Question: How did you get to this ferry today?

Demographics: Boarding Mode

There are significant differences in rider demographics boarding by different modes, notably in terms of gender, age, and employment status. There are no significant differences in household income levels by boarding mode. Moreover, there are few differences within each of the three boarding mode segments by travel season. Where these differences exist, they are called out. Following are brief descriptions of the demographic characteristics of each of three boarding mode segments.

Vehicle Drivers

Vehicle drivers are more likely than both vehicle and walk-on passengers to be men.

- Nearly three out of five (56%) of vehicle drivers are men compared to 48 percent of walk-on passengers and only 33 percent of vehicle passengers.

The median age of WSF riders who drive onto the ferry is just under 53 years. Forty-five percent (45%) of vehicle drivers are 55 and older.

- Winter vehicle drivers are approximately two years older than summer vehicle drivers – median age of 53.7 compared to 51.7, respectively. This is due to a larger percentage of winter drivers who are between 55 and 64 – 30 percent for winter compared to 26 percent for summer. On the other hand and while a small segment, twice as many summer vehicle drivers are between the ages of 18 and 24 as in the winter – 5 percent compared to 2 percent, respectively.

The majority (62%) of vehicle drivers are employed full-time. However, a significant segment (18%) is retired.

Vehicle Passengers

Vehicle passengers are significantly more likely than vehicle drivers and walk-on passengers to be women.

- Two-thirds (67%) of vehicle passengers are women compared to 44 percent of vehicle drivers and 52 percent of walk-on passengers.

Vehicle passengers are the oldest rider segment. However, a significant number are also relatively young. This would suggest that vehicle passengers may be children, spouses, or parents of the driver.

- Nearly one out of five (19%) vehicle passengers are 65 and older and are similar to vehicle drivers in this regard; 17 percent of vehicle drivers are 65 and older.
- On the other hand, 7 percent of vehicle passengers are under the age of 25 and to some extent mirror walk-on passengers, 10 percent of whom are under the age of 25.

Consistent with their age, vehicle passengers have the highest percentage of retirees (23%). It is also noteworthy that an above-average percentage (12%) of vehicle passengers are employed part-time.

Walk-on Passengers

Walk-on passengers are somewhat more likely to be women (52%) than men (48%). They are more likely than vehicle drivers to be women.

- Over half (52%) of walk-on passengers are women compared to 44 percent of vehicle drivers.

Walk-on passengers are the youngest passenger segment – median age of 48.

- Only 32 percent of walk-on passengers are 55 and older compared to 45 percent of vehicle drivers and vehicle passengers. On the other hand, 23 percent of walk-on passengers are between the ages of 16 and 34 compared to 14 percent of vehicle drivers

Finally, walk-on passengers are the most likely rider segment to be employed full-time (68%).

Table 14: WSF Rider Demographics by Boarding Mode

	All Riders (n = 13,130)	Vehicle Drivers (n = 5,241)	Vehicle Passengers (n = 2,155)	Walk-On Passengers (n = 5,734)
Gender				
Male	48%	**56%**	33%	48%
Female	52%	44%	**67%**	52%
Age				
16 – 17	1%	<1%	**1%**	**2%**
18 – 24	6%	4%	**6%**	**8%**
25 – 34	11%	10%	11%	**13%**
35 – 44	17%	17%	14%	**18%**
45 – 54	25%	25%	22%	**26%**
55 – 64	26%	**28%**	26%	23%
65 Plus	14%	**17%**	**19%**	9%
Median	51.0	52.7	53.8	48.3
Employment				
Employed Full-Time	61%	**62%**	48%	**68%**
Employed Part-Time/Student	15%	13%	**18%**	**17%**
Self Employed	1%	**1%**	1%	<1%
Retired	16%	**18%**	**23%**	10%
Other	7%	**7%**	**9%**	5%
Household Income				
< $15,000	4%	2%	4%	**6%**
$15,000 to $35,000	10%	9%	9%	**10%**
$35,000 to $50,000	11%	12%	11%	11%
$50,000 to $75,000	21%	**23%**	20%	20%
$75,000 to $100,000	19%	19%	18%	18%
$100,000 to $150,000	20%	20%	20%	21%
$150,000 Plus	15%	16%	17%	14%
Median	$80,703	$80,943	$82,841	$79,136

Route Level Analysis: Boarding Mode for Sampled Trip

Highest Rates of Walk-On Passengers

The **Seattle / Bremerton** route has the highest percentage of walk-on passengers (63%). The **Seattle / Bainbridge** route also carries an above-average percentage of walk-on passengers (48%).

Highest Rates of Vehicle Drivers

On all of the other major routes, 30 percent or fewer riders walk onto the ferry.

The **Mukilteo / Clinton** route has the lowest percentage of walk-on passengers (20%).

- Over half of Mukilteo / Clinton riders drive on (52%). While a higher than average percentage of Mukilteo / Clinton riders are vehicle passengers (28%), the average vehicle occupancy• on this route is actually lower than average (1.7 pp / vehicle compared to 1.8 pp / vehicle for all routes). Vehicle occupancy on this route increases in the summer months (from 1.5 pp / vehicle in the winter to 1.7 pp / vehicle in the summer).

The Fauntleroy / Vashon and Fauntleroy Southworth routes have the highest percentage of vehicle drivers – 55 and 54 percent, respectively.

- These routes also have relatively low vehicle occupancy. Average vehicle occupancy on Fauntleroy / Vashon is 1.8 pp / vehicle – 1.4 in the winter and 2.0 in the summer. Average vehicle occupancy on Fauntleroy / Southworth is 1.4 pp / vehicle – 1.3 in the winter and 1.5 in the summer. The Fauntleroy / Southworth route has the lowest average vehicle occupancy of all routes.

Half (50%) of Edmonds / Kingston riders are vehicle drivers.

- Vehicle occupancy on this route is consistent with the overall average across all routes – 1.8 pp / vehicle. In addition, this figure varies little between winter and summer – 1.8 and 1.9 pp / vehicle, respectively.

Highest Rates of Vehicle Passengers

The three major recreation routes – Keystone / Port Townsend, Anacortes / San Juans, and Anacortes / Sidney – all have a higher-than-average percentage of vehicle passengers. Vehicle occupancy on these routes is also higher than average – notably during the summer months.

- Average vehicle occupancy all routes: 1.8 pp / vehicle overall; 1.7 pp / vehicle winter; 1.9 pp / vehicle summer
- Average vehicle occupancy Keystone / Port Townsend: 1.9 pp / vehicle overall; 1.6 pp / vehicle winter; 2.1 pp / vehicle summer
- Average vehicle occupancy Anacortes / San Juans: 2.4 pp / vehicle overall; 2.0 pp / vehicle winter; 2.5 pp / vehicle summer
- Average vehicle occupancy Anacortes / Sidney: 2.8 pp / vehicle summer.

• *Note that vehicle occupancy is self-reported data from the vehicle driver in response to the question: Including yourself how many people were in the vehicle?*

Table 15: Boarding Mode for Sampled Trip by Route

	All Riders (n=13,130)	SEA/ BAIN (n=4,600)	SEA/ BRE (n=1,567)	EDM/ KIN (n=2,413)	MUK/ CLI (n=1,789)	FAU/ VAS (n=503)	FAU/ SOU (n=547)	PTD/ TAH (n=147)	KEY/ PTT (n=432)	ANA/ SAN (n=923)	ANA/ SID (n=209)
	All Riders (Winter & Summer)										
Vehicle Driver	42%	30%	26%	**50%**	**52%**	**55%**	**54%**	**52%**	41%	42%	25%
Vehicle Passenger	22%	22%	11%	24%	**28%**	15%	16%	19%	**37%**	27%	**32%**
Walk-On Passenger	36%	**48%**	**63%**	26%	20%	30%	30%	30%	22%	31%	**43%**
	Winter Riders										
Vehicle Driver	46%	33%	28%	**53%**	**55%**	**57%**	**58%**	**71%**	47%	51%	
Vehicle Passenger	19%	20%	7%	22%	**25%**	10%	9%	14%	**35%**	28%	
Walk-On Passenger	35%	**47%**	**64%**	25%	20%	33%	33%	15%	19%	21%	
	Summer Riders										
Vehicle Driver	39%	28%	24%	**47%**	**50%**	**52%**	**52%**	37%	37%	38%	25%
Vehicle Passenger	24%	23%	14%	26%	30%	20%	20%	22%	**38%**	26%	**32%**
Walk-On Passenger	37%	**48%**	**62%**	27%	20%	28%	28%	41%	25%	36%	**43%**

Question: How did you get to this ferry today?

Factors Influencing Choice of Boarding Modes

In the March survey, respondents who drove onto the ferry (vehicle drivers) were asked to indicate which factors influenced their choice of boarding modes for the sampled trip.

Four out of five (80%) winter vehicle drivers state that their primary reasons for driving onto the ferry instead of walking is because of their need for a car on their destination side. This is consistent with statements made in the qualitative (focus group) research when participants stated that they "drive on the ferry because they have to not because they choose to."

- While listed as the primary reason by vehicle drivers on all routes, those on four routes are more likely to say they need a car at their destination – Port Townsend / Keystone (92%), Fauntleroy / Southworth (85%), Edmonds / Kingston (84%), and Mukilteo / Clinton (83%).
  - Among Port Townsend / Keystone drivers, this most likely reflects the nature of the trips taken on this route – recreational trips where people may need their car to travel further and/or are carrying luggage and gear.
  - For the other three routes, this may reflects the lack or inconvenience of public transportation on the destination side as well as the diversity of destinations these riders may be trying to reach.

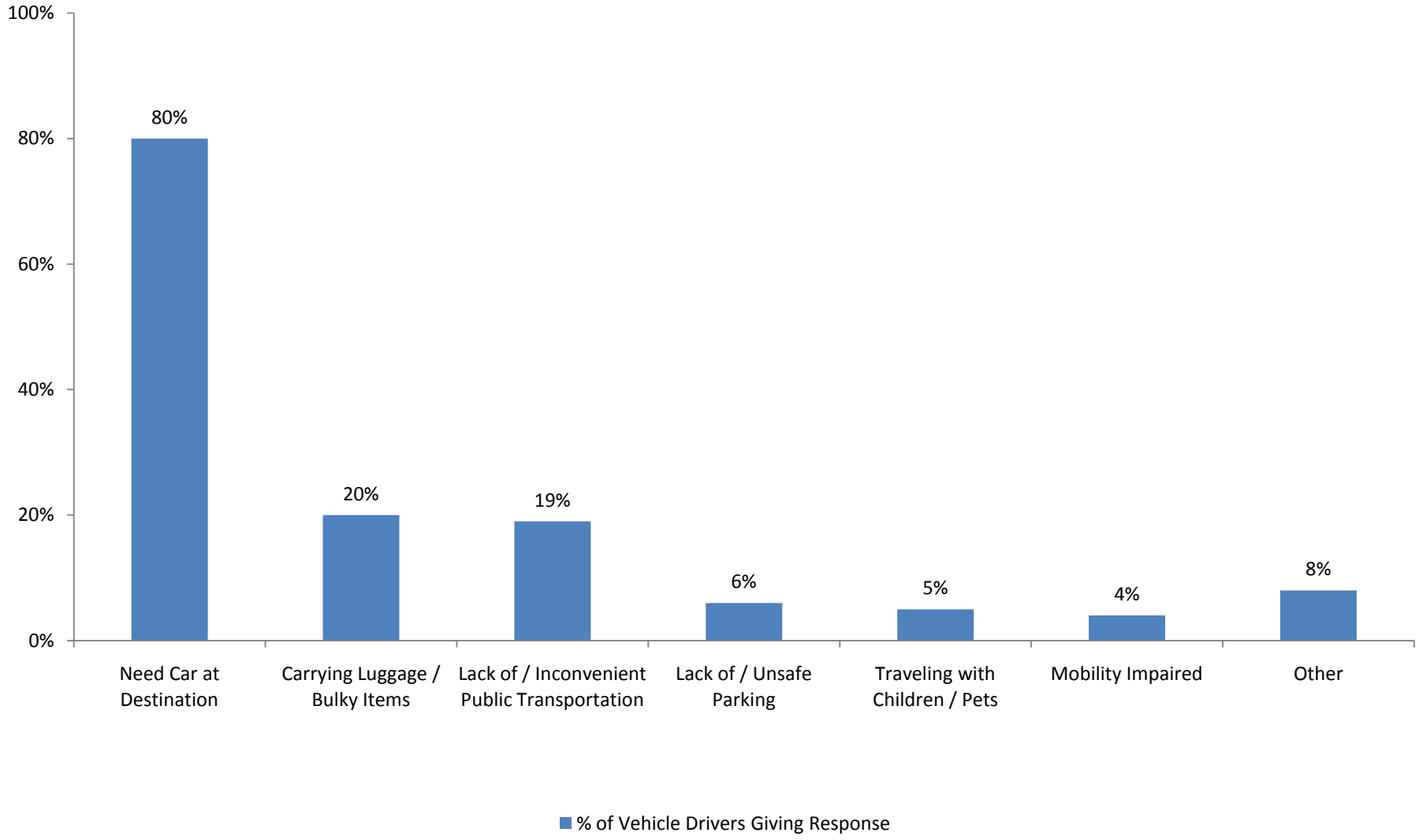
One out of five (20%) vehicle drivers say they drive onto the ferry because they are carrying luggage or other bulky items. Not surprisingly, this is mentioned more often by those traveling for non-commute trips than commuters – 23 percent compared to 11 percent, respectively.

- Consistent with the types of trips taken by those on these routes, riders on the Anacortes / San Juans and Port Townsend / Keystone routes are more likely to say that the fact that they are carrying luggage or other bulky items is their for driving onto the ferry – 44 and 30 percent, respectively.

Nearly one out of five (19%) vehicle drivers say they drive on because there is no public transportation, public transportation is inconvenient, and/or they don't like transit. One-third (35%) of those driving on for commute trips say lack of or inconvenient transit is the reason they drive on.

- Consistent with statements made in the qualitative research, an above-average percentage of vehicle drivers on the Fauntleroy / Vashon (29%) and, to a lesser extent, Fauntleroy Southworth (25%) routes say this is a reason they drive onto the ferry. Given current levels of service provided by King County Metro, it is likely that the primary barriers are perceptions that the available public transportation is inconvenient or there is a lack of service to specific destinations rather than a total lack of service.

Figure 4: Factors Influencing Vehicle Drivers' Choice of Boarding Modes



Question: Which of the following influenced your decision to drive on the ferry instead of walking on?
Responses sum to more than 100 percent; multiple responses allowed.
Base: Winter Vehicle Drivers (n = 2,976)

Detailed Findings: Time of Day / Week Travel for Sampled Trip

Respondents were assigned to a day and time of travel based on the trip on which they were sampled. Peak hours were defined by WSF at the outset of the project as follows: eastbound weekday trips between 6:00 and 9:00 a.m.; westbound weekday trips between 3:00 and 7:00 p.m.; westbound Saturdays between 8:00 a.m. and noon; and eastbound Sunday between noon and 8:00 p.m.

All Riders: Time of Day / Week Travel for Sampled Trip – All Riders and by Season

Ridership on WSF is distributed across all times of the day and days of the week.

- One-third (33%) of all riders travel during the peak weekday travel periods defined above. An approximately equal percentage (31%) travels on weekends. The balance (37%) travels during off-peak weekday periods. Note that trips scheduled during the peak weekday travel periods represent approximately 17 percent of percent of all scheduled trips on WSF. This then suggests that 35 percent of all peak weekday winter trips and 32 percent of all peak weekday summer trips are carried on 17 percent of all the scheduled trips.

Consistent with the increase in recreational travel, the percentage of peak weekday riders decreases in the summer and is offset by an increase in the percentage of off-peak weekday riders and, to a lesser extent, weekend riders. Moreover, the total number of off-peak weekday and weekend trips increases more than the total number of peak weekday trips.

Table 16: Number of Weekly Trips by Time of Day / Week Travel

	Winter	Summer	% Change
Peak Weekday	145,867	178,178	22%
Off-Peak Weekday	143,053	208,859	46%
Weekend	122,456	177,062	45%
Total	411,376	564,099	37%

Table 17: Time of Day / Week Travel of Sampled Trip

	All Riders (n = 13,130)	Winter (n = 5,471)	Summer (n = 7,659)
Peak Weekday – All Riders	33%	35%	32%
Vehicle Drivers	12%	14%	11%
Vehicle Passengers	6%	5%	6%
Walk-On Passengers	15%	16%	15%
Off-Peak Weekday – All Riders	37%	35%	37%
Vehicle Drivers	18%	19%	17%
Vehicle Passengers	8%	6%	9%
Walk-On Passengers	11%	10%	11%
Weekend – All Riders	31%	30%	31%
Vehicle Drivers	12%	13%	11%
Vehicle Passengers	9%	8%	9%
Walk-On Passengers	10%	8%	11%

Nets may not equal the sum of the boarding types due to rounding.

Demographics

Peak Weekday Riders

Peak weekday riders are equally likely to be men (50%) and women (50%).

- Peak weekday vehicle drivers are more likely to be men (57%) than women (43%). On the other hand, peak weekday vehicle passengers are more likely to be women (65%) than men (35%). Peak weekday walk-on passengers are almost equally split between men (49%) and women (51%).
- Winter peak weekday riders are somewhat more likely to be men (52%) than women (48%). This reverses in the summer, with more peak weekday riders being women (52%) than men (48%).

The majority (56%) of peak weekday riders is between the ages of 45 and 64; median age is 51.

- Peak weekday vehicle drivers and passengers are significantly older than peak weekday walk-on passengers. Forty-five percent (45%) of peak weekday vehicle drivers and 46 percent of vehicle passengers are 55 and older compared to 31 percent of walk-on passengers. On the other hand, 53 percent of walk-on passengers are between the ages of 35 and 54 compared to 44 percent of vehicle drivers and only 36 percent of vehicle passengers.

Seven out of ten (70%) peak weekday riders are employed full-time.

- This is notable among peak weekday vehicle drivers (67%) and peak weekday walk-on passengers (80%). Only half (50%) of vehicle passengers are employed full-time.
- While the majority of peak weekday riders are employed in both winter and summer travel periods, there is a decrease in the percentage that are employed full-time – 73 percent in winter and 68 percent in summer – with a corresponding change in the percentage that are retired or homemakers – 12 percent in winter and 16 percent in the summer.

Reflecting the high employment levels, peak weekday riders are more affluent than those riding during other travel periods.

- Nearly three out of five (59%) peak weekday riders have household incomes of $75,000 or more; average (median) self-reported household income is $86,814. There are no significant differences between passenger types.
- Peak weekday summer riders are somewhat more affluent than peak weekday winter riders – average (median) household incomes of $88,802 compared to $84,642, respectively. This is due to a slightly different distribution within two broad household income categories. A greater percentage of winter than summer riders has household incomes between $75,000 and $100,000 – 22 percent compared to 19 percent, respectively. On the other hand, a greater percentage of summer than winter riders has household incomes of $150,000 or greater – 19 percent compared to 15 percent, respectively.

Off-Peak Weekday Riders

Off-peak weekday riders are almost equally likely to be women (51%) as men (49%).

- Off-peak weekday vehicle drivers are more likely to be men (56%) than women (44%). On the other hand, vehicle passengers are more likely to be women (62%) than men (38%). This is consistent with the general findings regarding the differences in gender between vehicle drivers and passengers.
- There are no seasonal differences.

With two exceptions, off-peak weekday riders generally match the profile of WSF riders in terms of age.

- Sixteen percent (16%) of off-peak weekday riders are 65 and older and 7 percent are between 18 and 24.
- Winter riders are older than summer riders in this travel period – median age of 53 compared to 50, respectively. Twenty-nine percent (29%) of winter riders are between the ages of 55 and 64 compared to 23 percent of summer riders.

While the majority (57%) of off-peak weekday riders are employed full-time, a significant percentage is retired (18%), employed part-time (11%), or homemakers (4%).

- Consistent with other findings, more off-peak weekday winter riders (60%) are employed full-time compared with summer riders (55%).

Reflecting their employment status and age, off-peak weekday riders are less affluent than peak weekday and, to a lesser extent, weekend riders.

- This segment's self-reported median household income is $75,377. An above-average percentage (36%) report household incomes of $35,000 to $75,000.

Weekend Riders

Weekend riders are more likely to be women (56%) than men (44%). This is true in both summer and winter travel periods.

- Again, vehicle passengers are more likely to be women. However, this difference is quite dramatic among weekend vehicle passengers – 74 percent of weekend vehicle passengers are women.

Like off-peak weekday riders, weekend riders generally match the profile of WSF riders in terms of the age except for the oldest and youngest segments.

- Fifteen percent (15%) of weekend riders are 65 and older; 20 percent is between 18 and 34.

Also similar to off-peak weekday riders, the majority (55%) of weekend riders are employed full-time. However, a significant percentage is retired (19%), employed part-time (11%), students (6%), or homemakers (4%).

Weekend riders' household income generally matches the profile of WSF riders.

Table 18: WSF Rider Demographics by Time of Day / Week Travel

	All Riders (n = 13,130)	Peak Weekday (n = 6,192)	Off-Peak Weekday (n = 3,278)	Weekend (n = 3,660)
Gender				
Male	48%	**50%**	**49%**	44%
Female	52	50	51	**56**
Age				
16 – 17	1%	1%	1%	1%
18 – 24	6	4	**7**	**7**
25 – 34	11	10	11	**13**
35 – 44	17	17	16	16
45 – 54	25	**29**	23	23
55 – 64	26	**27**	25	24
65 +	14	11	**16**	**15**
Median	51.0	51.1	51.4	50.4
Employment				
Full-Time	61%	**70%**	57%	55%
Part-Time / Student	15	13	**16**	**17**
Self-Employed	1	1	1	1
Retired	16	12	**18**	**19**
Other	7	5	8	8
Household Income				
< $15,000	4%	3%	4%	4%
$15,000 - $35,000	10	8	10	10
$35,000 - $50,000	11	10	**13**	11
$50,000 - $75,000	21	20	**23**	22
$75,000 - $100,000	19	**20**	18	17
$100,000 - $150,000	20	**22**	19	20
$150,000 Plus	15	**17**	13	**16**
Median	$80,703	$86,814	$75,377	$79,401

Route Level Analysis

Note that the three primarily recreation routes – Anacortes / San Juans, Anacortes / Sidney, and Port Townsend / Keystone – are not included in this analysis since the data for these routes was not weighted for time / day of travel as the definitions for peak travel periods are different on these routes.

Point Defiance / Tahlequah

Reflecting the high percentage of commuters, the Point Defiance / Tahlequah route carries the highest percentage of peak weekday riders (51%).

- Overall, there is a higher percentage of vehicle drivers than walk-on passengers on this route – 52 percent compared to 30 percent, respectively. This is more evenly divided during the peak weekday travel periods – 50 percent vehicle drivers compared to 42 percent walk-on passengers – due to the relatively small percentage of vehicle passengers traveling at this time.

Despite carrying an above-average percentage of commuters, a relatively high percentage of Point Defiance / Tahlequah riders travel on the weekends (38%).

- Nearly all weekend riders on this route drive onto the ferry as a driver (53%) or passenger in a vehicle (37%).

Seattle / Bremerton

The Seattle / Bremerton route also carries an above-average percentage of riders during peak weekday travel periods (42%).

- The Seattle / Bremerton route has the highest percentage of walk-on passengers compared to vehicle drivers – 63 percent compared to 26 percent, respectively. This is even more pronounced during peak weekday travel periods – 74 percent walk-on passengers compared to 19 percent vehicle drivers.

- During off-peak weekday periods, while there are still more walk-on passengers than vehicle drivers, the percentage of walk-on passengers compared to vehicle drivers is not as dramatic – 51 percent compared to 36 percent, respectively. Including vehicle passengers with vehicle drivers, a nearly equal number of Seattle / Bremerton riders walk onto (51%) versus drive onto (49%) the ferry during off-peak weekday travel periods.

Even on weekends, a relatively high percentage of Seattle / Bremerton riders walk onto the ferry (58%). In all travel periods, the majority (51 percent or more) of all passengers on this route are walk-on passengers.

Seattle / Bainbridge

Travel times for Seattle / Bainbridge riders generally match the profile of WSF riders generally. This would be as expected, given that 27 percent of all riders on the system use this route. Thirty-four percent (34%) of Seattle / Bainbridge riders travel during peak weekday travel periods.

- Nearly half (48%) of all Seattle / Bainbridge riders are walk-on passengers. During peak weekday travel periods, walk-on passengers account for 64 percent of all riders; vehicle drivers account for 23 percent of riders during peak weekday travel periods.

A somewhat higher than average percentage of Seattle / Bainbridge riders travel during off-peak weekday travel periods (38%).

- The mix of vehicle drivers and walk-on passengers during off-peak weekday travel periods is almost equal – 37 percent vehicle drivers and 40 percent walk-on passengers. Considering vehicle passengers as well, the majority (60%) of Seattle / Bainbridge riders drive onto the ferry during off-peak travel periods.

A somewhat lower than average percentage of Seattle / Bainbridge riders travel on the weekends (27%).

- Like off-peak weekday periods, the majority of Seattle / Bainbridge weekend riders drive onto the ferry – as a driver (31%) or passenger (31%). The higher percentage of vehicle passengers on weekends (compared to off-peak weekdays) suggests higher vehicle occupancy on weekends.

Edmonds / Kingston

Only one out of five (20%) all Edmonds / Kingston riders travel during peak weekday travel periods – the lowest of all major routes.

- Half (50%) of all Edmonds / Kingston riders drive a vehicle onto the ferry. This figure is somewhat lower (47%) during peak weekday periods. On the other hand, 26 percent of all Edmonds / Kingston riders walks onto the ferry; during peak weekday travel periods this figure increases to 32 percent.

Thirty-seven percent (37%) of all Edmonds / Kingston riders travel on the weekends.

- Seventy-two percent (72%) of Edmonds / Kingston riders drive onto the ferry as a driver (44%) or as a passenger in a vehicle (28%). There are no differences between winter and summer.

Forty-three percent (43%) of Edmonds / Kingston riders travel during off-peak weekday periods.

- This time period carries the highest percentage of vehicle traffic (78%). Fifty-six percent (56%) of off-peak weekday riders on this route drive onto the ferry as a driver in a vehicle. An additional 22 percent is a passenger in a vehicle. Therefore, this time period is also carrying the highest rate of single-occupant vehicles.

Mukilteo / Clinton

A higher than average percentage of Mukilteo / Clinton riders also travel during off-peak weekday (42%) and weekend (33%) travel periods.

- Nearly three out of five (59%) off-peak weekday riders drive on the ferry as the driver in the vehicle; an additional 22 percent are vehicle passengers.

- A similar number of weekend riders drive onto the ferry. However, the split is somewhat more evenly divided between drivers (47%) and vehicle passengers (36%). As on the other routes, this suggests higher vehicle occupancy on weekends than during off-peak weekdays.

One out of four (25%) Mukilteo / Clinton riders travel during peak weekday hours.

- Overall, only one out of five (20%) Mukilteo / Clinton riders walk onto the ferry. This increases to 26 percent during peak weekday travel periods.

Fauntleroy / Vashon

The Fauntleroy / Vashon route has one of the highest rates of vehicle drivers on the system (55%).

- Unlike the other routes that carry a significant number of commuters, the percentage of walk-on passengers during peak weekday travel periods increases only slightly – from 30 percent overall to 34 percent during peak weekday travel periods.

A somewhat higher than average percentage of Fauntleroy / Vashon riders travel during off-peak weekday travel periods (43%).

- Three out of four (75%) Fauntleroy / Vashon riders drive onto the ferry during off-peak weekday travel periods – as a driver (60%) or passenger in a vehicle (15%).

Fauntleroy / Southworth

Nearly three out of ten (29%) Fauntleroy / Southworth riders travel during peak weekday travel periods.

- Ridership at this time is almost equally divided between vehicle drivers (43%) and walk-on passengers (47%).

The Fauntleroy / Southworth route has the highest percentage of off-peak weekday riders of any route on the system (47%).

- Overall, 30 percent of passengers on the Fauntleroy / Southworth walk onto the ferry. During off-peak weekday travel periods, this figure drops to 21 percent, the lowest of any day part for this route.

On the other hand, the Fauntleroy / Southworth route has a lower percentage (23%) of weekend riders than any other route.

- The distribution of vehicle drivers (53%) and passengers (20%) traveling on this route on the weekends generally matches the overall mix of riders on this route.

Table 19: Time of Day / Week Travel for Sampled Trip by Route

	All Riders (n=13,130)	SEA/ BAIN (n=4,600)	SEA/ BRE (n=1,567)	EDM/ KIN (n=2,413)	MUK/ CLI (n=1,789)	FAU/ VAS (n=503)	FAU/ SOU (n=547)	PTD/ TAH (n=147)
Peak Weekday (Net)	*33%*	*34%*	***42%***	*20%*	*25%*	*30%*	*29%*	***51%***
Vehicle Drivers	36%	23%	19%	47%	47%	**53%**	43%	**50%**
Vehicle Passengers	17%	13%	7%	21%	27%	13%	10%	8%
Walk-On Passengers	46%	**64%**	**74%**	32%	26%	34%	47%	42%
Off-Peak Weekday (Net)	*36%*	*38%*	*31%*	***43%***	*42%*	*43%*	***47%***	*11%*
Vehicle Drivers	49%	37%	36%	**56%**	**59%**	**60%**	**62%**	54%
Vehicle Passengers	21%	23%	13%	22%	22%	15%	17%	4%
Walk-On Passengers	30%	**40%**	**51%**	21%	19%	25%	21%	42%
Weekend (Net)	*31%*	*27%*	*27%*	***37%***	***33%***	*27%*	*23%*	*38%*
Vehicle Drivers	39%	31%	25%	**44%**	**47%**	**48%**	**53%**	53%
Vehicle Passengers	29%	31%	16%	28%	36%	19%	20%	37%
Walk-On Passengers	32%	38%	**58%**	28%	17%	34%	27%	10%

The primarily recreational routes (Port Townsend / Keystone, Anacortes / San Juans, Anacortes / Sidney) are not included in this analysis as the standard definitions of peak / off-peak travel periods do not apply.

Factors Influencing Choice of Travel Times

In the March survey, respondents were asked to indicate which factors influenced their decision to travel at the time they did for the sampled trip.

Overall, riders' choice of travel times is determined by their work or school schedule (43%) or other schedule commitments (32%). This would suggest a certain degree of inflexibility in their travel times and is consistent with statements made in the qualitative research phase.

- Not surprisingly, peak weekday riders are the most likely to suggest that they travel at this time because of their work or school schedule (68%). Eighty-two percent (82%) of peak weekday walk-on passengers travel when they do because of their work or school schedule.
  - Reflecting the number of commuters, riders on the Seattle / Bremerton, Fauntleroy / Vashon, and Seattle / Bainbridge routes are the most likely to say that their work or school schedule is the primary factor in their choice of travel times—55, 56, and 46 percent, respectively.
- One out of four (24%) peak weekday riders say they travel at this time because of some other schedule commitment – an appointment, flight schedule, or a commitment to pick-up / drop-off children at day care. This is notable for peak weekday vehicle passengers – 34 percent travels at this time because of a scheduled appointment or other commitment. As many vehicle passengers are older or younger, it is possible that these riders schedule appointments to accommodate the travel needs of the vehicle driver.

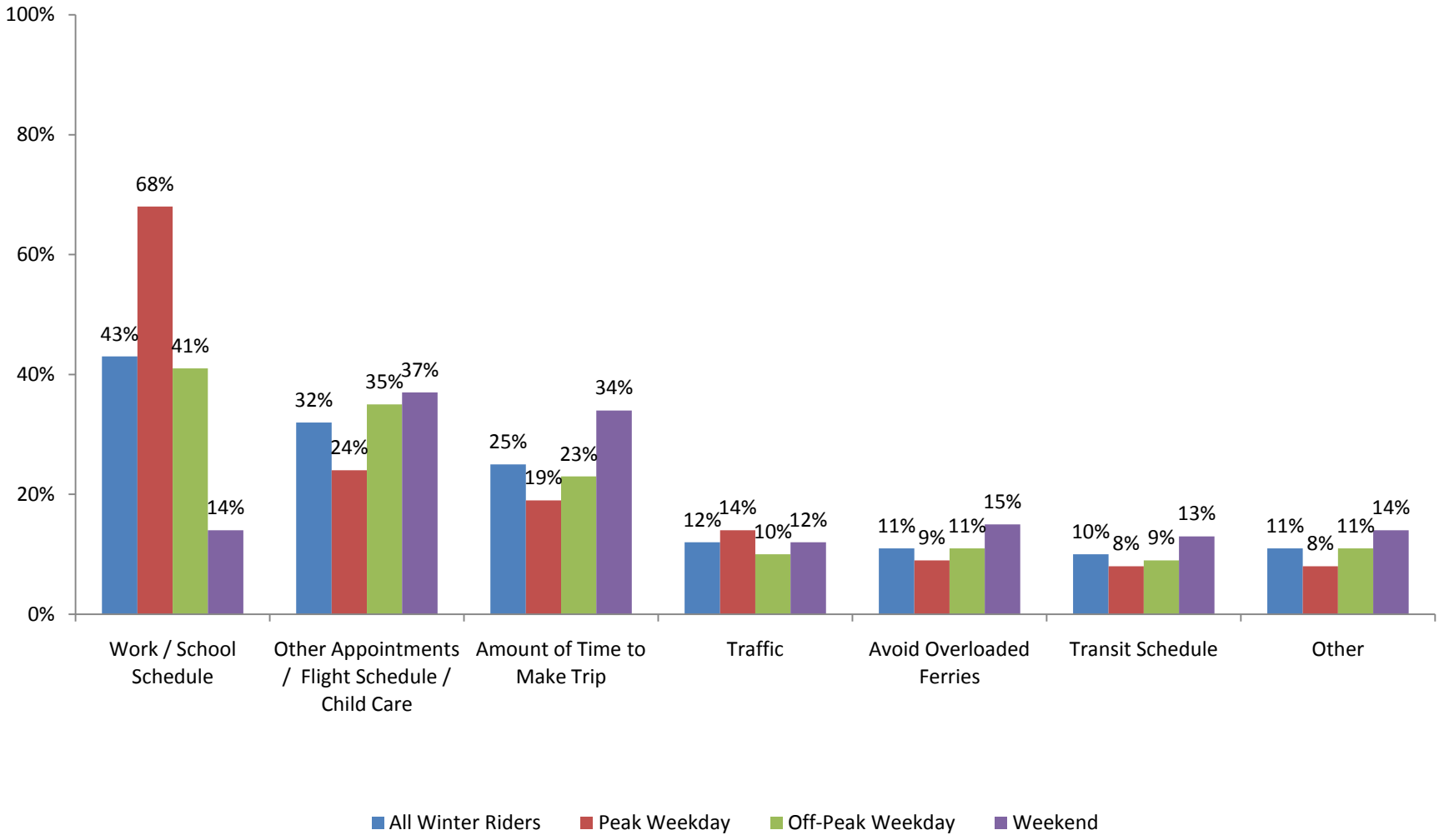
One out of four (25%) riders consider the total amount of time required to make the trip. This is noteworthy among weekend riders – 34 percent considers the amount of travel time.

- Weekend vehicle drivers and passengers are more likely to say they consider the total amount of time required to make the trip – 37 and 43 percent, respectively – compared to 15 percent of walk-on passengers, suggesting that they consider how crowded the boats are and the likelihood that they might have to wait.
- Riders on the Anacortes / San Juans, Port Townsend / Keystone, and Mukilteo / Clinton routes are the most likely to say they consider the total amount of time required for the trip – 35, 38, and 31 percent, respectively. Riders on the Mukilteo / Clinton route are also more likely to say they are trying to avoid overcrowded ferries (20%).

Twelve percent (12%) of all riders choose the time to travel to avoid traffic to the ferry terminal.

- Among peak weekday vehicle drivers this figure increases to 21 percent compared to 10 percent of off-peak weekday and 12 percent of weekend vehicle drivers. As would be expected only 6 percent of peak weekday walk-on passengers consider traffic when choosing what ferry to take.

Figure 5: Factors Influencing Choice of Travel Times



Question: Which of the following influenced your decision to drive on the ferry instead of walking on?
Responses sum to more than 100 percent; multiple responses allowed.
Base: All Respondents (March Survey Only) n = 5,471

Detailed Findings – Purpose of Sampled Trip

Respondents were asked to check a single response category indicating the **primary** purpose of the trip they were taking the day they were sampled. On-board surveys typically capture the most frequent trip riders take.

All Riders: Purpose of Sampled Trip – All Riders and by Season

Three out of ten (30%) WSF riders say the primary purpose of their trip is to commute to work or school.

- Nearly all (96%) commute trips are for work. The balance (4%) consists of school commutes.
- An additional 8 percent of trips during a day are business-related activities (included in "other" in the graph).
- While the percentage of trips that are commute trips decreases significantly in the summer – from 36 percent in winter to 25 percent in summer – the actual number of commute trips season to season is nearly the same – 142,357 weekly trips in winter and 141,490 in the summer.

The balance (70%) of all trips are non-commute trips.

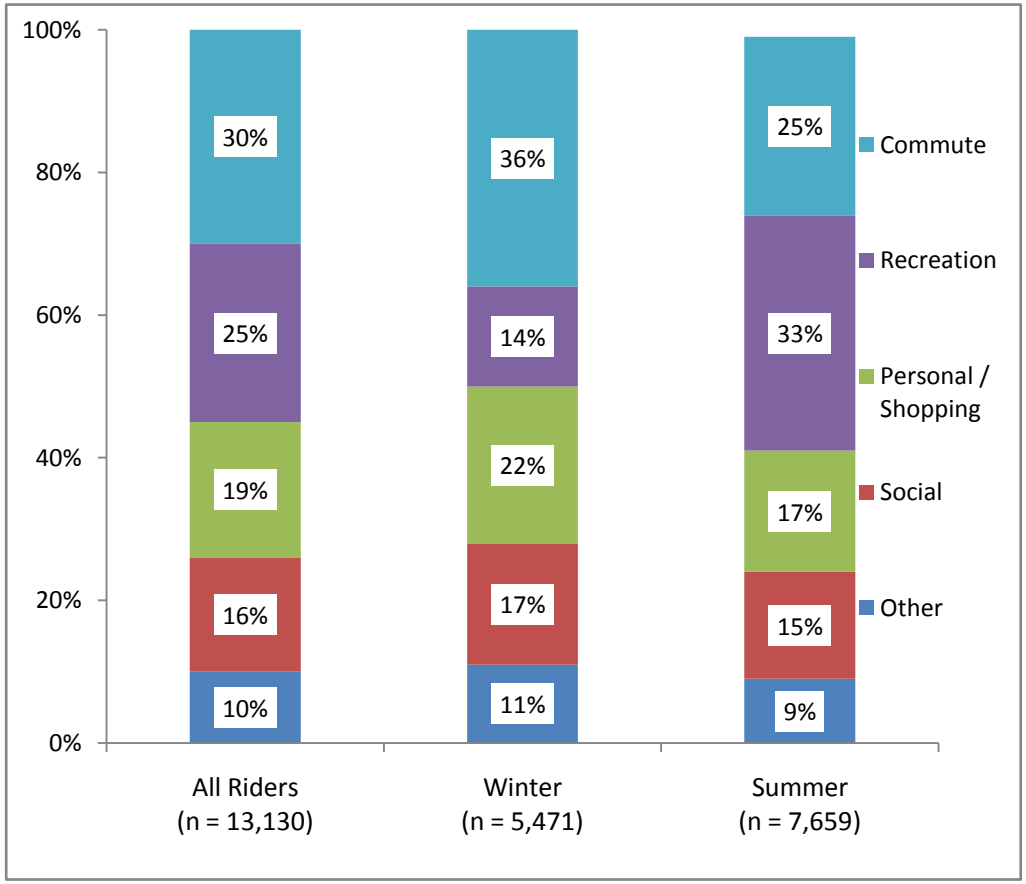
- One out of four (25%) trips are for recreation travel. This includes travel for recreation / tourism (20%) and to special events (5%). The percentage of recreation trips increases significantly during the summer months.
  - Overall ridership on WSF increases by 37 percent in the summer. The number of recreation trips increases by 221 percent. The number of trips for all other non-commute purposes also increases, but by a significantly smaller amount.

Table 20: Number of Weekly Trips by Trip Purpose

	Winter	Summer	% Change
Commute	142,357	141,490	-1%
Recreation	57,519	184,376	221%
Personal / Shopping	87,484	95,220	9%
Social	70,026	83,879	20%
Other	42,987	51,402	20%
Total Weekly Trips*	411,377	564,099	37%

Total weekly trips sum to more than the individual categories, due to missing responses in the specific trip purpose question.

Figure 6: Purpose of Sampled Trip



Question: What is the primary purpose of this specific trip - that is the trip you are taking today?

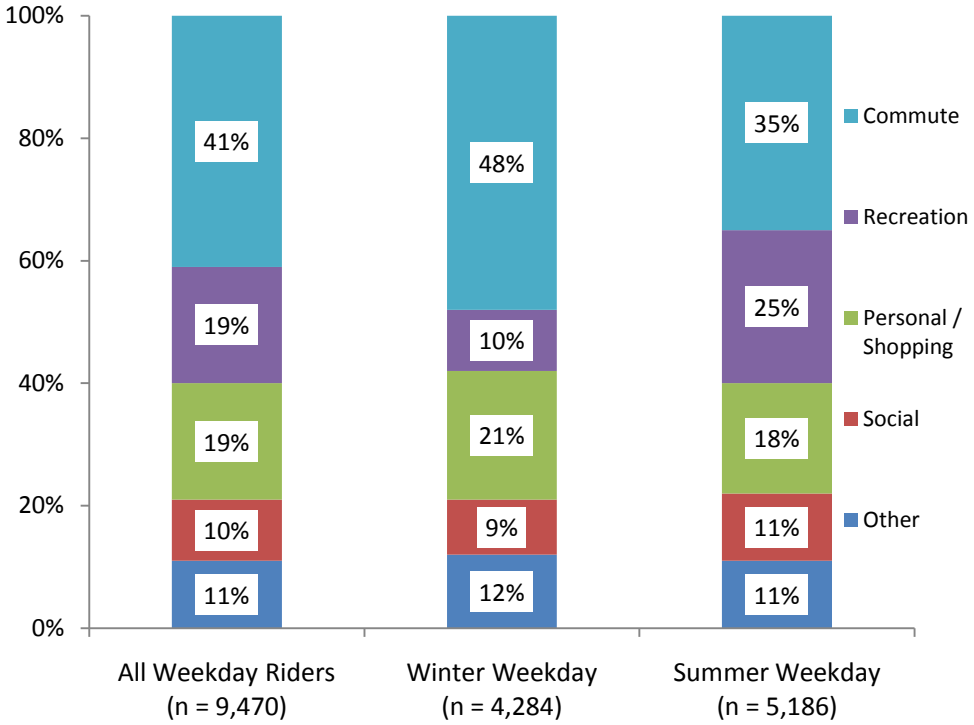
Weekday Trips Only

Looking only at weekday trips, a somewhat different picture emerges.

- Overall, commute trips account for 41 percent of all trips made during weekdays.
- This figure is significantly higher during the winter when nearly half (48%) of all weekday trips are commute trips.

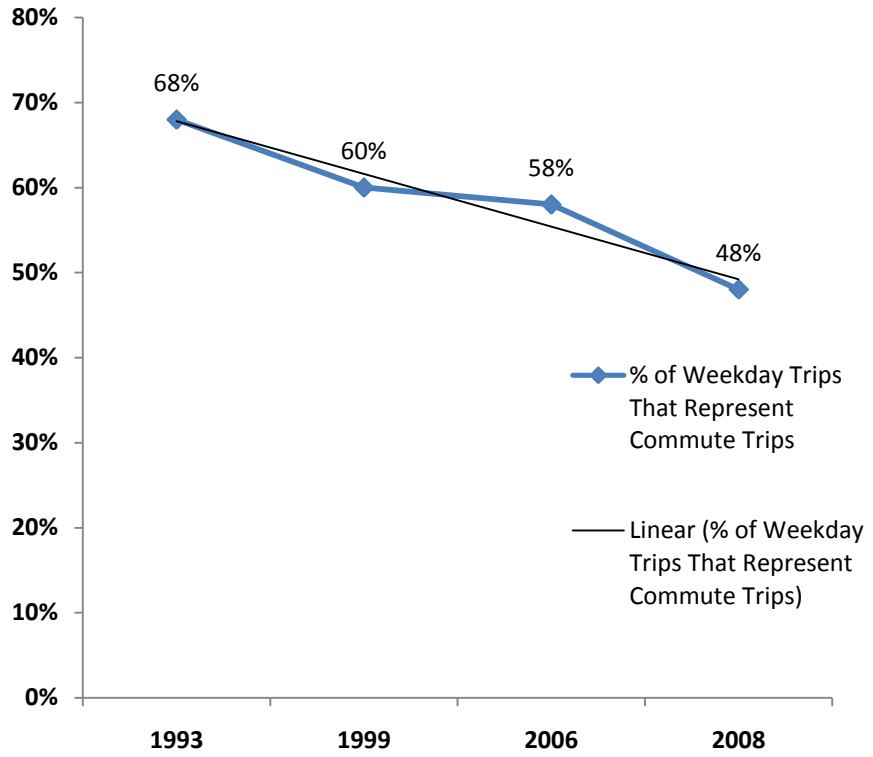
The percentage of weekday commute trips (48%) made during the winter is lower than in the 2006 Origin & Destination Survey conducted during a comparable, non-summer travel period, which found that 58 percent of weekday trips were commute trips and continues the downward trend in weekday commute trips noted since 1993 (Table 3.2, page 3.9). In fact, the trend in the decline of commuter trips as a percentage of total trips appears to be accelerating given that only two years have elapsed since the last O&D study.

Figure 7: Trip Purpose – Weekdays Only



Question: What is the primary purpose of this specific trip - that is the trip you are taking today?

Figure 8: Trends in Percent of Weekday Commute Trips



Demographics: Purpose of Sampled Trip

Commuters

- As would be expected, commuters are more likely to be men (56%) than women (44%).
- Commuters are also younger – the majority (54%) is between the ages of 35 and 54.
- Nearly all (87%) are employed full-time.

Non-Commuters

- On the other hand, those traveling for non-commute purposes are generally more likely to be women than men. The exception is those in the "other category" which skews toward men (58% men / 42% women). This category includes those traveling for business-related travel.
- Non-commuters are older. Of particular note are those traveling for personal or shopping. This category includes those traveling for medical appointments.

While there are differences in the median (self-reported) household income, there are no significant or practical differences in the income distribution between the two segments – commuters and non-commuters.

The "other category" looks more like a commuter than the balance of non-commuters. The "other category" includes those traveling for work / business appointments and/or for travel to / from the airport, which could include business travel.

Table 21: Demographic Characteristics of WSF Riders by Purpose of Sampled Trip

	All Riders (Winter & Summer)					
	All Riders (n=13,130)	**Commute** (n=4,905)	**Personal/ Shopping** (n=2,110)	**Recreation** (n=3,040)	**Social** (n=1,743)	**Other** (n=1,113)
Gender						
Male	48%	**56%**	44%	43%	38%	58%
Female	52%	44%	**56%**	**57%**	**62%**	42%
Age						
16 – 17	1%	0%	1%	1%	2%	0%
18 – 24	6%	5%	5%	6%	**10%**	5%
25 – 34	11%	12%	8%	12%	14%	12%
35 – 44	17%	**21%**	12%	17%	14%	16%
45 – 54	25%	**33%**	20%	24%	18%	26%
55 – 64	26%	26%	**29%**	24%	24%	27%
65 +	14%	3%	**26%**	**17%**	**19%**	13%
Median	51.0	48.6	56.5	51.0	51.1	51.0
Employment						
Full-Time	61%	**87%**	39%	52%	47%	**68%**
Emp. PT /Student	15%	10%	17%	18%	19%	17%
Self-Employed	1%	0%	2%	1%	1%	2%
Retired	16%	0%	**31%**	**22%**	**25%**	9%
Other	7%	1%	11%	8%	9%	5%
HH Income						
< $15,000	4%	2%	5%	4%	6%	3%
$15K - $35K	10%	7%	10%	9%	13%	9%
$35K - $50K	11%	10%	13%	11%	13%	11%
$50K - $75K	21%	22%	23%	19%	22%	21%
$75K - $100K	19%	20%	17%	17%	18%	22%
$100K - $150K	20%	**25%**	19%	19%	17%	19%
$150K Plus	15%	15%	14%	**21%**	10%	14%
Median	$80,703	$87,288	$74,283	$85,580	$70,089	$80,069

Boarding Mode Results: Purpose of Sampled Trip

Vehicle Drivers

Vehicle drivers' trip purposes are diverse and generally match the profile of all Washington State riders.

- Vehicle drivers are almost equally likely to be taking a commute (26%), recreation (21%) or personal / shopping (22%) trip.

Vehicle drivers are somewhat less likely than WSF riders generally to be commuters – 26 percent compared to 30 percent, respectively.

- The number of vehicle drivers making commute trips decreases significantly during the summer travel period – from 57,089 weekly trips in the winter to 46,664 in the summer – an 18 percent decrease.
- This is noteworthy as the analysis on trip purpose indicates that the actual number of weekly commute trips varies little by season (see page 56). In addition and as noted in the analysis of boarding mode for the sampled trip on page 39, there is a small (2 point) increase in the percentage of summer walk-on passengers. This would suggest that at least some vehicle drivers switch to another mode (e.g., walk-on, bicycle, or motorcycle) when the weather improves.

Total vehicle driver trips increase in the summer months by 16 percent – from 189,086 to 218,688 weekly trips. This increase is significantly less than the overall increase in summer trips on WSF (37%), suggesting that while vehicle traffic clearly increases, much of the overall increase in ridership is a function of more passengers per vehicle as well as more walk-on passengers than an increase in the actual number of vehicles.

Table 22: Vehicle Drivers' Purpose of Sampled Trip Overall and by Season (% and Number of Vehicle Trips)

		Trip Purpose				
		All Riders (Winter & Summer)				
		Commute Trips	Recreation	Personal / Shopping	Social	Other
% of All Trips	All Riders	30%	25%	19%	16%	10%
	Vehicle Drivers	26%	21%	22%	15%	15%
		Winter				
		Commute Trips	Recreation	Personal/ Shopping	Social	Other
% of Trips	All Riders	36%	14%	22%	17%	11%
	Vehicle Drivers	31%	13%	25%	15%	15%
# of Trips	All Riders	142,357	57,519	87,484	70,026	42,987
	Vehicle Drivers	57,089	24,468	45,603	28,175	27,645
		Summer				
		Commute Trips	Recreation	Personal/ Shopping	Social	Other
% of Trips	All Riders	25%	33%	17%	15%	9%
	Vehicle Drivers	22%	28%	20%	16%	15%
# of Trips	All Riders	141,490	184,376	95,220	83,879	51,402
	Vehicle Drivers	46,664	59,222	43,795	33,436	31,581
% Change (Summer / Winter)	All Riders	-1%	221%	9%	20%	20%
	Vehicle Drivers	-18%	142%	-4%	19%	14%

Walk-On Passengers

Walk-on passengers are more likely than both vehicle drivers and passengers to be commuters.

- Nearly half (46%) of all walk-on passengers (winter and summer) say the primary purpose of their trip is to commute to work or school.
- While the percentage of total commute trips made by walk-on passengers decreases in the summer (from 52 percent of trips to 41 percent of trips), the total number of commute trips made by walk-on passengers during the summer months actually increases by 15 percent – from 73,384 trips in the winter to 84,468 trips in the summer. This provides further support to the premise on the previous page that a greater number of commuters drive on during the winter because of the weather. They may then walk on during the summer due to concerns about vehicle demand. What is most important about this increase in walk-on commute trips during the summer is that it clearly suggests that some vehicle drivers can potentially walk on the ferries.

Table 23: Walk-On Passengers' Purpose of Sampled Trip Overall and by Season (% and Number of Vehicle Trips)

		Trip Purpose				
		All Riders (Winter & Summer)				
		Commute Trips	**Recreation**	**Personal / Shopping**	**Social**	**Other**
% of All Trips	All Riders	30%	25%	19%	16%	10%
	Walk-Ons	**46%**	22%	13%	14%	5%
		Winter				
		Commute Trips	**Recreation**	**Personal/ Shopping**	**Social**	**Other**
% of Trips	All Riders	36%	14%	22%	17%	11%
	Walk-Ons	**52%**	12%	15%	15%	6%
# of Trips	All Riders	142,357	57,519	87,484	70,026	42,987
	Walk-Ons	73,384	16,305	21,004	21,301	8,172
		Summer				
		Commute Trips	**Recreation**	**Personal/ Shopping**	**Social**	**Other**
% of Trips	All Riders	25%	33%	17%	15%	9%
	Walk-Ons	**41%**	29%	12%	14%	4%
# of Trips	All Riders	141,490	184,376	95,220	83,879	51,402
	Walk-Ons	84,468	59,599	25,542	27,838	8,186
% Change (Summer / Winter)	All Riders	-1%	221%	9%	20%	20%
	Walk-Ons	15%	266%	22%	31%	<1%

Vehicle Passengers

Vehicle passengers are the least likely to be traveling for commute trips – only 10 percent of vehicle passengers are commuters compared to 30 percent of riders generally. Their travel is generally spread across all other purposes.

- The number of recreation trips in summer is highest among vehicle passengers. This supports the higher vehicle occupancy noted during the summer months – 1.9 pp / vehicle in the summer compared to 1.7 pp / vehicle in the winter.

Table 24: Vehicle Passengers' Purpose of Sampled Trip Overall and by Season (% and Number of Vehicle Trips)

		Trip Purpose				
		All Riders (Winter & Summer)				
		Commute Trips	Recreation	Personal / Shopping	Social	Other
% All Trips	All Riders	30%	25%	19%	16%	10%
	Vehicle Passengers	10%	39%	22%	20%	9%
		Winter				
		Commute Trips	Recreation	Personal/ Shopping	Social	Other
% of Trips	All Riders	36%	14%	22%	17%	11%
	Vehicle Passengers	15%	22%	27%	27%	9%
# of Trips	All Riders	142,357	57,519	87,484	70,026	42,987
	Vehicle Passengers	11,884	16,746	20,877	20,550	7,169
		Summer				
		Commute Trips	Recreation	Personal/ Shopping	Social	Other
% of Trips	All Riders	25%	33%	17%	15%	9%
	Vehicle Passengers	8%	48%	19%	17%	9%
# of Trips	All Riders	141,490	184,376	95,220	83,879	51,402
	Vehicle Passengers	10,358	65,555	25,883	22,606	11,635
% Change (Summer / Winter)	All Riders	-1%	221%	9%	20%	20%
	Vehicle Passengers	-13%	291%	24%	10%	62%

Route Level Results: Sampled Trip Purpose

While WSF has information on the total number of trips on the system, it does not have detailed data on the nature and type of trips. Key differentiating characteristics of each route are outlined in this section.

Seattle / Bainbridge

The Seattle / Bainbridge route carries 27 percent of the total system trips per week; it is by far the most heavily used route (in terms of total number of passengers). Thirty-six percent (36%) of trips on this route are commute trips; this equates to more than 46,000 commute trips weekly, or 33 percent of all weekly commute trips on the system.

- While the percentage of commute trips on this route decreases during the summer months, there is little change in the total number of commute trips in each season.
- One out of four (24%) riders on this route are traveling for recreational purposes. While the percentage of recreational riders increases in the summer months, the increase in the number of recreational trips is less than that on routes overall – a 146 percent increase compared to 221 percent across all routes.

Table 25: Seattle / Bainbridge Riders' Purpose of Sampled Trip Overall and by Season (% and Number of Vehicle Trips)

		Trip Purpose				
		All Riders (Winter & Summer)				
		Commute Trips	**Recreation**	**Personal / Shopping**	**Social**	**Other**
% All Trips	All Riders	30%	25%	19%	16%	10%
	SEA / BAI	**36%**	24%	19%	12%	9%
		Winter				
		Commute Trips	**Recreation**	**Personal/ Shopping**	**Social**	**Other**
% of Trips	All Riders	36%	14%	22%	17%	11%
	SEA / BAI	41%	16%	21%	12%	10%
# of Trips	All Riders	142,357	57,519	87,484	70,026	42,987
	SEA / BAI	46,196	18,018	23,339	13,045	11,073
		Summer				
		Commute Trips	**Recreation**	**Personal/ Shopping**	**Social**	**Other**
% of Trips	All Riders	25%	33%	17%	15%	9%
	SEA / BAI	31%	30%	18%	13%	8%
# of Trips	All Riders	141,490	184,376	95,220	83,879	51,402
	SEA / BAI	46,332	44,319	25,884	19,001	12,064
% Change (Summer / Winter)	All Riders	-1%	221%	9%	20%	20%
	SEA / BAI	0%	146%	11%	46%	9%

Seattle / Bremerton

The Seattle / Bremerton route has the second highest percentage of commuters (46%). The Seattle / Bremerton route carries 11 percent of all riders but 17 percent of all weekly commute trips.

- While the percentage of commute trips on the Seattle / Bremerton route is lower in the summer, the actual number of commute trips increases by 21 percent – from 22,451 trips in the winter months to 27,070 in the summer.
- This route experiences a lower-than-average increase in the number of recreation trips in the summer months – 144 percent increase compared to 221 percent across all routes.
- While the percentage of trips for personal and shopping is the same for both winter and summer, the number of shopping trips increases by 31 percent in the summer.

Table 26: Seattle / Bremerton Riders' Purpose of Sampled Trip Overall and by Season (% and Number of Vehicle Trips)

		Trip Purpose				
		All Riders (Winter & Summer)				
		Commute Trips	**Recreation**	**Personal / Shopping**	**Social**	**Other**
% All Trips	All Riders	30%	25%	19%	16%	10%
	SEA / BRE	**46%**	17%	16%	10%	11%
		Winter				
		Commute Trips	**Recreation**	**Personal/ Shopping**	**Social**	**Other**
% of Trips	All Riders	36%	14%	22%	17%	11%
	SEA / BRE	**50%**	12%	16%	11%	10%
# of Trips	All Riders	142,357	57,519	87,484	70,026	42,987
	SEA / BRE	22,451	5,395	7,297	4,715	4,632
		Summer				
		Commute Trips	**Recreation**	**Personal/ Shopping**	**Social**	**Other**
% of Trips	All Riders	25%	33%	17%	15%	9%
	SEA / BRE	**43%**	21%	15%	10%	11%
# of Trips	All Riders	141,490	184,376	95,220	83,879	51,402
	SEA / BRE	27,070	13,156	9,587	6,264	6,724
% Change (Summer / Winter)	All Riders	-1%	221%	9%	20%	20%
	SEA / BRE	21%	144%	31%	33%	45%

Edmonds / Kingston

The Edmonds / Kingston route is the system's second largest route – carrying 18 percent of all weekly trips.

- Less than one out of four (23%) trips on Edmonds / Kingston route are commute trips. Edmonds / Kingston carries 14 percent of all commute trips on the system.
- This route experiences one of the largest decreases in the percentage of commute trips during the summer months (-34%). Moreover, this route experiences one of the largest decreases (-17%) in the number of weekly commute trips.
- An above-average percentage (24%) of trips on Edmonds / Kingston is for social purposes (visiting friends and family). This route carries 27 percent of all system riders traveling for social visits.
- In addition, there is a significant increase (33%) in the number of shopping trips in the summer travel period.

Table 27: Edmonds/ Kingston Riders' Purpose of Sampled Trip Overall and by Season (% and Number of Vehicle Trips)

		Trip Purpose				
		All Riders (Winter & Summer)				
		Commute Trips	Recreation	Personal / Shopping	Social	Other
% All Trips	All Riders	30%	25%	19%	16%	10%
	EDM / KIN	23%	24%	18%	**24%**	11%
		Winter				
		Commute Trips	Recreation	Personal/ Shopping	Social	Other
% of Trips	All Riders	36%	14%	22%	17%	11%
	EDM / KIN	29%	13%	18%	29%	11%
# of Trips	All Riders	142,357	57,519	87,484	70,026	42,987
	EDM / KIN	21,815	9,976	13,701	21,865	8,605
		Summer				
		Commute Trips	Recreation	Personal/ Shopping	Social	Other
% of Trips	All Riders	25%	33%	17%	15%	9%
	EDM / KIN	19%	32%	19%	20%	10%
# of Trips	All Riders	141,490	184,376	95,220	83,879	51,402
	EDM / KIN	18,109	31,070	18,195	19,651	9,776
% Change (Summer / Winter)	All Riders	-1%	221%	9%	20%	20%
	EDM / KIN	-17%	211%	33%	-10%	14%

Mukilteo / Clinton

The Mukilteo / Clinton route is the system's third largest route – carrying 17 percent of all weekly trips.

- Like Edmonds / Kingston, this route carries a lower-than-average percentage of commute trips (24%).
- While there is a decrease in the percentage of riders traveling for commute trips during the summer months, there is little change in the total number of commute trips between seasons.
- While overall, one out of five (21%) trips on Mukilteo / Clinton are recreational trips, this route experiences a significant increase in the percentage (190%) and number (273%) of summer recreation trips.
- An above-average percentage of trips on Mukilteo / Clinton (25%) consist of personal or shopping trips. This route carries 22 percent of all system riders traveling for personal or shopping trips.

Table 28: Mukilteo / Clinton Riders' Purpose of Sampled Trip Overall and by Season (% and Number of Vehicle Trips)

		Trip Purpose				
		All Riders (Winter & Summer)				
		Commute Trips	**Recreation**	**Personal / Shopping**	**Social**	**Other**
% All Trips	All Riders	30%	25%	19%	16%	10%
	MUK / CLI	24%	21%	**25%**	**19%**	11%
		Winter				
		Commute Trips	**Recreation**	**Personal/ Shopping**	**Social**	**Other**
% of Trips	All Riders	36%	14%	22%	17%	11%
	MUK / CLI	27%	10%	30%	23%	10%
# of Trips	All Riders	142,357	57,519	87,484	70,026	42,987
	MUK / CLI	19,234	7,113	20,927	15,951	7,039
		Summer				
		Commute Trips	**Recreation**	**Personal/ Shopping**	**Social**	**Other**
% of Trips	All Riders	25%	33%	17%	15%	9%
	MUK / CLI	22%	29%	21%	16%	11%
# of Trips	All Riders	141,490	184,376	95,220	83,879	51,402
	MUK / CLI	19,402	26,539	19,092	14,717	10,237
% Change (Summer / Winter)	All Riders	-1%	221%	9%	20%	20%
	MUK / CLI	1%	**273%**	-9%	-8%	45%

Fauntleroy / Vashon

Eight percent (8%) of all weekly trips are carried on this route.

- A higher-than-average percentage of Fauntleroy / Vashon trips are commute trips (38%). Despite carrying just 8 percent of all trips, this route carries 11 percent of all commute trips on the system.
- The Fauntleroy / Vashon route experiences a significant decrease in both the percentage (-41%) and number (-27%) of commute trips during the summer months.
- At the same time, this route experiences an above-average increase in the percentage of recreation trips (160%); the number of recreation trips increases by 218 percent.

Table 29: Fauntleroy / Vashon Riders' Purpose of Sampled Trip Overall and by Season (% and Number of Vehicle Trips)

		Trip Purpose				
		All Riders (Winter & Summer)				
		Commute Trips	**Recreation**	**Personal / Shopping**	**Social**	**Other**
% All Trips	All Riders	30%	25%	19%	16%	10%
	FAU / VAS	**38%**	19%	22%	9%	13%
		Winter				
		Commute Trips	**Recreation**	**Personal/ Shopping**	**Social**	**Other**
% of Trips	All Riders	36%	14%	22%	17%	11%
	FAU / VAS	**49%**	10%	22%	6%	12%
# of Trips	All Riders	142,357	57,519	87,484	70,026	42,987
	FAU / VAS	18,016	3,670	8,105	2,269	4,375
		Summer				
		Commute Trips	**Recreation**	**Personal/ Shopping**	**Social**	**Other**
% of Trips	All Riders	25%	33%	17%	15%	9%
	FAU / VAS	**29%**	26%	21%	10%	14%
# of Trips	All Riders	141,490	184,376	95,220	83,879	51,402
	FAU / VAS	13,079	11,677	9,416	4,636	6,059
% Change (Summer / Winter)	All Riders	-1%	221%	9%	20%	20%
	FAU / VAS	**-27%**	218%	16%	104%	38%

Fauntleroy / Southworth

This route carries 4 percent of all weekly trips.

- Like Fauntleroy / Vashon, a higher-than-average percentage of Fauntleroy / Southworth riders are commuters (42%). There is no significant difference in the percentage of commuter trips between winter and summer. However, the number of commute trips on this route increases by 37 percent.
- Only 15 percent of all riders on this route are recreational travelers. This route carries only 2 percent of all recreational trips on the system.
- Despite the relatively low level of recreational travel, this route mirrors the change in summer travel noted for Fauntleroy / Vashon. That is, this route experiences an above-average increase in the percentage of recreation trips (150%); the number of recreation trips increases by 264 percent.

Table 30: Fauntleroy / Southworth Riders' Purpose of Sampled Trip Overall and by Season (% and Number of Vehicle Trips)

		Trip Purpose				
		All Riders (Winter & Summer)				
		Commute Trips	**Recreation**	**Personal / Shopping**	**Social**	**Other**
% All Trips	All Riders	30%	25%	19%	16%	10%
	FAU / SOU	**42%**	15%	14%	19%	9%
		Winter				
		Commute Trips	**Recreation**	**Personal/ Shopping**	**Social**	**Other**
% of Trips	All Riders	36%	14%	22%	17%	11%
	FAU / SOU	43%	8%	15%	20%	13%
# of Trips	All Riders	142,357	57,519	87,484	70,026	42,987
	FAU / SOU	6,661	1,219	2,358	3,107	2,027
		Summer				
		Commute Trips	**Recreation**	**Personal/ Shopping**	**Social**	**Other**
% of Trips	All Riders	25%	33%	17%	15%	9%
	FAU / SOU	42%	20%	13%	18%	7%
# of Trips	All Riders	141,490	184,376	95,220	83,879	51,402
	FAU / SOU	9,106	4,441	2,914	3,878	1,441
% Change (Summer / Winter)	All Riders	-1%	221%	9%	20%	20%
	FAU / SOU	**37%**	**264%**	24%	25%	-29%

Point Defiance / Tahlequah

Nearly half (48%) of Point Defiance / Tahlequah riders are commuters. This represents the highest percentage of riders traveling for commute trips of all routes. In total, the Point Defiance / Tahlequah route carries 5,500 to 6,800 commute trips per week or 4 percent of the system's total commute trips.

- Ridership on this route increases by 29 percent between the winter and summer travel periods.
- Unlike many of the other routes, there is only a slight decrease in the percentage of commuters on this route between seasons – from 50 percent of all trips in the winter to 47 percent of all trips in the summer. At the same time, the number of actual of commute trips increases by 23 percent.
- This route experiences a lower-than-average increase in the number of recreation trips in the summer months – 122 percent increase compared to 221 percent increase across all routes.

Table 31: Point Defiance / Tahlequah Riders' Purpose of Sampled Trip Overall and by Season (% and Number of Vehicle Trips)

		Trip Purpose				
		All Riders (Winter & Summer)				
		Commute Trips	**Recreation**	**Personal / Shopping**	**Social**	**Other**
% All Trips (Summer / Winter)	All Riders	30%	25%	19%	16%	10%
	PTD / TAH	**48%**	16%	17%	10%	9%
		Winter				
		Commute Trips	**Recreation**	**Personal/ Shopping**	**Social**	**Other**
% of Trips	All Riders	36%	14%	22%	17%	11%
	PTD / TAH	**50%**	11%	21%	9%	9%
# of Trips	All Riders	142,357	57,519	87,484	70,026	42,987
	PTD / TAH	5,539	1,231	2,339	985	985
		Summer				
		Commute Trips	**Recreation**	**Personal/ Shopping**	**Social**	**Other**
% of Trips	All Riders	25%	33%	17%	15%	9%
	PTD / TAH	**47%**	19%	13%	11%	9%
# of Trips	All Riders	141,490	184,376	95,220	83,879	51,402
	PTD / TAH	6,818	2,727	1,909	1,636	1,364
% Change (Summer / Winter)	All Riders	-1%	221%	9%	20%	20%
	PTD / TAH	23%	122%	-18%	66%	38%

Port Townsend / Keystone

This route carries 3 percent of system trips year round. As would be expected, this route experiences a significant increase (59%) in ridership during the summer months and carries 3 percent of all summer trips system wide compared to 2 percent during the winter. Some caution should be used in interpreting the winter to summer increase in travel on this route in 2008. The March on-board survey followed the retirement of the Steel Electrics. While regular service had resumed before the survey was conducted, the boats in service have lower vehicle capacity than the old ferries; moreover, the schedule had changed.

- Most trips on this route are for recreation (44%) or social (26%) purposes.
- During the winter, travel on this route is less recreation oriented – 22 percent are recreation and 63 percent are other non-commute trips. Much of this winter travel are social trips (visiting friends and family). In the summer, 57 percent of trips are for recreation.
- The percentage of recreation trips on this routes increases by 159 percent; the number of recreation trips more than triples (311%). One hundred seventeen percent (117%) of the increase in summer ridership on this route is a result of the increase in recreational travel; the number of other trips decreases.

Table 32: Port Townsend / Keystone Riders' Purpose of Sampled Trip Overall and by Season (% and Number of Vehicle Trips)

		Trip Purpose				
		All Riders (Winter & Summer)				
		Commute Trips	Recreation	Personal / Shopping	Social	Other
% All Trips	All Riders	30%	25%	19%	16%	10%
	KEY / PTT	7%	**44%**	12%	**26%**	12%
		Winter				
		Commute Trips	Recreation	Personal/ Shopping	Social	Other
% of Trips	All Riders	36%	14%	22%	17%	11%
	KEY / PTT	14%	**22%**	15%	**27%**	**21%**
# of Trips	All Riders	142,357	57,519	87,484	70,026	42,987
	KEY / PTT	1,373	2,094	1,455	2,605	2,037
		Summer				
		Commute Trips	Recreation	Personal/ Shopping	Social	Other
% of Trips	All Riders	25%	33%	17%	15%	9%
	KEY / PTT	2%	**57%**	10%	**25%**	6%
# of Trips	All Riders	141,490	184,376	95,220	83,879	51,402
	KEY / PTT	356	8,612	1,551	3,742	844
% Change (Summer / Winter)	All Riders	-1%	221%	9%	20%	20%
	KEY / PTT	-74%	**311%**	7%	-7%	-59%

Anacortes / San Juans

This route carries 8 percent of all weekly riders. As would be expected, this varies by season – this route carries 6 percent of all trips in the winter and nearly 10 percent of all trips in the summer. Ridership on this route increases by 109 percent in the summer.

- Over half (54%) of all trips on the Anacortes / San Juans route are recreation trips. In the summer months, this increases to 63 percent of all trips. Eighty-one percent (81%) of the increase in ridership on this route in the summer is a result of the increase in summer recreation trips.
- During the winter, this route serves a more diverse range of trips. Winter travel is almost equally divided between recreation (34%) and personal / shopping (31%) trips.

Table 33: Anacortes / San Juans Riders' Purpose of Sampled Trip Overall and by Season (% and Number of Vehicle Trips)

		Trip Purpose				
		All Riders (Winter & Summer)				
		Commute Trips	Recreation	Personal / Shopping	Social	Other
% All Trips	All Riders	30%	25%	19%	16%	10%
	ANA / SAN	3%	**54%**	18%	19%	6%
		Winter				
		Commute Trips	Recreation	Personal/ Shopping	Social	Other
% of Trips	All Riders	36%	14%	22%	17%	11%
	ANA / SAN	4%	**34%**	**31%**	**21%**	9%
# of Trips	All Riders	142,357	57,519	87,484	70,026	42,987
	ANA / SAN	1,071	8,804	7,963	5,485	2,213
		Summer				
		Commute Trips	Recreation	Personal/ Shopping	Social	Other
% of Trips	All Riders	25%	33%	17%	15%	9%
	ANA / SAN	2%	**63%**	12%	17%	5%
# of Trips	All Riders	141,490	184,376	95,220	83,879	51,402
	ANA / SAN	1,218	34,123	6,224	9,397	2,814
% Change (Summer / Winter)	All Riders	-1%	221%	9%	20%	20%
	ANA / SAN	14%	**288%**	-22%	71%	27%

Anacortes / Sidney

Less than 2 percent (1.6%) of all summer riders travel on the Anacortes / Sidney ferry.

- As would be expected, the vast majority (84%) of trips on this route are recreation trips.

Table 34: Anacortes / Sidney Riders' Purpose of Sampled Trip Overall and by Season (% and Number of Vehicle Trips)

		Trip Purpose				
		Summer				
		Commute Trips	Recreation	Personal/ Shopping	Social	Other
% of Trips	All Riders	25%	33%	17%	15%	9%
	ANA / SID	0%	**84%**	5%	10%	1%
# of Trips	All Riders	141,490	184,376	95,220	83,879	51,402
	ANA / SID	0	7,711	449	957	79

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Day / Time of Travel Analysis: Purpose of Sampled Trip

Peak Weekday

The majority (55%) of peak weekday trips are commute trips. This would suggest that the majority of those that have an option to travel at different times of the day already exercise that option. On the other hand, 45 percent of all riders traveling during peak weekday travel periods are non-commuters, representing an opportunity to potentially shift these travelers out of these times.

- This is notable among summer riders. Fifty percent (50%) of summer non-commuters travel during peak weekday travel periods. Notably, 20 percent of those traveling during peak weekday summer periods are taking a recreation trip. This equates to nearly 36,000 weekly trips. Of the total 58,875 vehicle driver trips made during summer peak weekday travel periods for which a trip purpose is known, 11,874 are recreation trips.

Table 35: Peak Weekday Riders' Purpose of Sampled Trip Overall and by Season (% and Number of Vehicle Trips)

		Trip Purpose				
		All Riders (Winter & Summer)				
		Commute Trips	**Recreation**	**Personal / Shopping**	**Social**	**Other**
% All Trips	All Riders	30%	25%	19%	16%	10%
	Peak Weekday	**55%**	14%	15%	7%	8%
		Winter				
		Commute Trips	**Recreation**	**Personal / Shopping**	**Social**	**Other**
% of Trips	All Riders	36%	14%	22%	17%	11%
	Peak Weekday	**62%**	7%	17%	6%	8%
# of Trips	All Riders	142,357	57,519	87,484	70,026	42,987
	Peak Weekday	88,912	10,037	23,632	8,872	11,377
		Summer				
		Commute Trips	**Recreation**	**Personal / Shopping**	**Social**	**Other**
% of Trips	All Riders	25%	33%	17%	15%	9%
	Peak Weekday	**50%**	20%	15%	8%	7%
# of Trips	All Riders	141,490	184,376	95,220	83,879	51,402
	Peak Weekday	87,505	35,911	25,809	14,334	12,807
% Change (Summer / Winter)	All Riders	-1%	221%	9%	20%	20%
	Peak Weekday	-2%	258%	9%	62%	13%

Peak Weekday Vehicle Drivers

A key assumption of this study is that there are some riders who drive on the ferry during peak commute hours who may have the flexibility to drive on during off-peak hours. Feedback from the qualitative research supports this hypothesis from the user level. Much of the thinking within the revenue and planning areas also believes that this is an important component for better balancing the system.

This analysis identifies a potential segment of vehicle drivers – specifically peak weekday vehicle drivers who are taking recreation and social trips – who could potentially shift their travel behavior to off-peak travel through some combination of incentives / disincentives. Recreation and social trips are highlighted as they are potentially the most flexible. Personal trips include scheduled medical appointments and the category for "other trips" includes scheduled business appointments or travel to the airport.

- During winter months, half (50%) of all trips made by vehicle drivers during peak weekday travel periods are non-commute trips. However, relatively few (15%) are recreation or social trips. Shifting all of these travelers to off-peak travel periods would reduce vehicle demand by just over 8,000 weekly vehicle trips.
- During the summer months, the percentage of recreation trips made by peak weekday vehicle drivers more than doubles – increasing from 8 to 20 percent. The total number of recreation trips increases by 162 percent. The percentage of social trips also increases – from 7 percent in the winter to 9 percent in the summer. The total number of social trips increases by 51 percent. The combined figure for recreation and social trips equates to more than 17,300 vehicle trips made during peak weekday travel periods.

Table 36: Peak Weekday Vehicle Drivers' Purpose of Sampled Trip Overall and by Season (% and Number of Vehicle Trips)

		Trip Purpose				
		All Riders (Winter & Summer)				
		Commute Trips	Recreation	Personal / Shopping	Social	Other
% All Trips	All Riders	30%	25%	19%	16%	10%
	Peak Weekday Vehicle Driver	44%	14%	21%	8%	12%
		Winter				
		Commute Trips	Recreation	Personal / Shopping	Social	Other
% of Trips	All Riders	36%	14%	22%	17%	11%
	Peak Weekday Vehicle Driver	50%	8%	22%	7%	13%
# of Trips	All Riders	142,357	57,519	87,484	70,026	42,987
	Peak Weekday Vehicle Driver	27,959	4,539	12,196	3,630	7,224
		Summer				
		Commute Trips	Recreation	Personal / Shopping	Social	Other
% of Trips	All Riders	25%	33%	17%	15%	9%
	Peak Weekday Vehicle Driver	38%	20%	20%	9%	12%
# of Trips	All Riders	141,490	184,376	95,220	83,879	51,402
	Peak Weekday Vehicle Driver	22,652	11,874	11,936	5,486	6,927
% Change (Summer / Winter)	All Riders	-1%	221%	9%	20%	20%
	Peak Weekday Vehicle Driver	-19%	162%	-2%	51%	-4%

Off-Peak Weekday

Off-peak weekday riders' trip purpose profile generally matches that of WSF riders generally, in both the winter and summer travel periods.

Table 37: Off-Peak Weekday Riders' Purpose of Sampled Trip Overall and by Season (% and Number of Vehicle Trips)

		Trip Purpose				
		All Riders (Winter & Summer)				
		Commute Trips	Recreation	Personal / Shopping	Social	Other
% All Trips	All Riders	30%	25%	19%	16%	10%
	Off-Peak Weekday	27%	23%	23%	13%	15%
		Winter				
		Commute Trips	Recreation	Personal/ Shopping	Social	Other
% of Trips	All Riders	36%	14%	22%	17%	11%
	Off-Peak Weekday	33%	14%	26%	12%	15%
# of Trips	All Riders	142,357	57,519	87,484	70,026	42,987
	Off-Peak Weekday	45,605	18,947	36,454	17,186	21,199
		Summer				
		Commute Trips	Recreation	Personal/ Shopping	Social	Other
% of Trips	All Riders	25%	33%	17%	15%	9%
	Off-Peak Weekday	23%	29%	20%	13%	15%
# of Trips	All Riders	141,490	184,376	95,220	83,879	51,402
	Off-Peak Weekday	47,683	58,416	41,562	26,837	30,304
% Change (Summer / Winter)	All Riders	-1%	221%	9%	20%	20%
	Off-Peak Weekday	5%	208%	14%	56%	43%

Weekend

The majority of weekend rider trips are recreation (40%) and social (30%) trips.

- During the winter months, winter riders' trips are more diverse – recreation (24%), personal / shopping (23%), and social (37%).
- In the summer, recreation clearly dominates – 51 percent of all weekend trips are recreation.

Table 38: Weekend Riders' Purpose of Sampled Trip Overall and by Season (% and Number of Vehicle Trips)

		Trip Purpose				
		All Riders (Winter & Summer)				
		Commute Trips	Recreation	Personal / Shopping	Social	Other
% All Trips	All Riders	30%	25%	19%	16%	10%
	Weekend	5%	**41%**	19%	**29%**	6%
		Winter				
		Commute Trips	Recreation	Personal/ Shopping	Social	Other
% of Trips	All Riders	36%	14%	22%	17%	11%
	Weekend	7%	24%	23%	37%	9%
# of Trips	All Riders	142,357	57,519	87,484	70,026	42,987
	Weekend	7,840	28,536	27,399	43,968	10,411
		Summer				
		Commute Trips	Recreation	Personal/ Shopping	Social	Other
% of Trips	All Riders	25%	**33%**	17%	15%	9%
	Weekend	4%	**51%**	16%	24%	5%
# of Trips	All Riders	141,490	184,376	95,220	83,879	51,402
	Weekend	6,302	90,049	27,849	42,708	8,291
% Change (Summer / Winter)	All Riders	-1%	221%	9%	20%	20%
	Weekend	-20%	216%	2%	-3%	-20%

Detailed Findings – Frequency of Riding (Total Number of One-Way Trips / Month)

Respondents were asked two questions to measure the frequency with which they travel on WSF. The first question asked the total number of trips they make in a typical month for the sampled trip. The second question asked the total additional trips they make on the ferry in a typical month. An overall variable was created to represent the total number of trips passengers make per month. This variable was then categorized into four groups: (1) those making less than 7 one-way trips per month, (2) those making 7 to 24 one-way trips per month, (3) those making 25 to 44 one-way trips per month, and (4) those making 45 or more one-way trips per month.

All Riders: Frequency of Riding – Overall and by Season

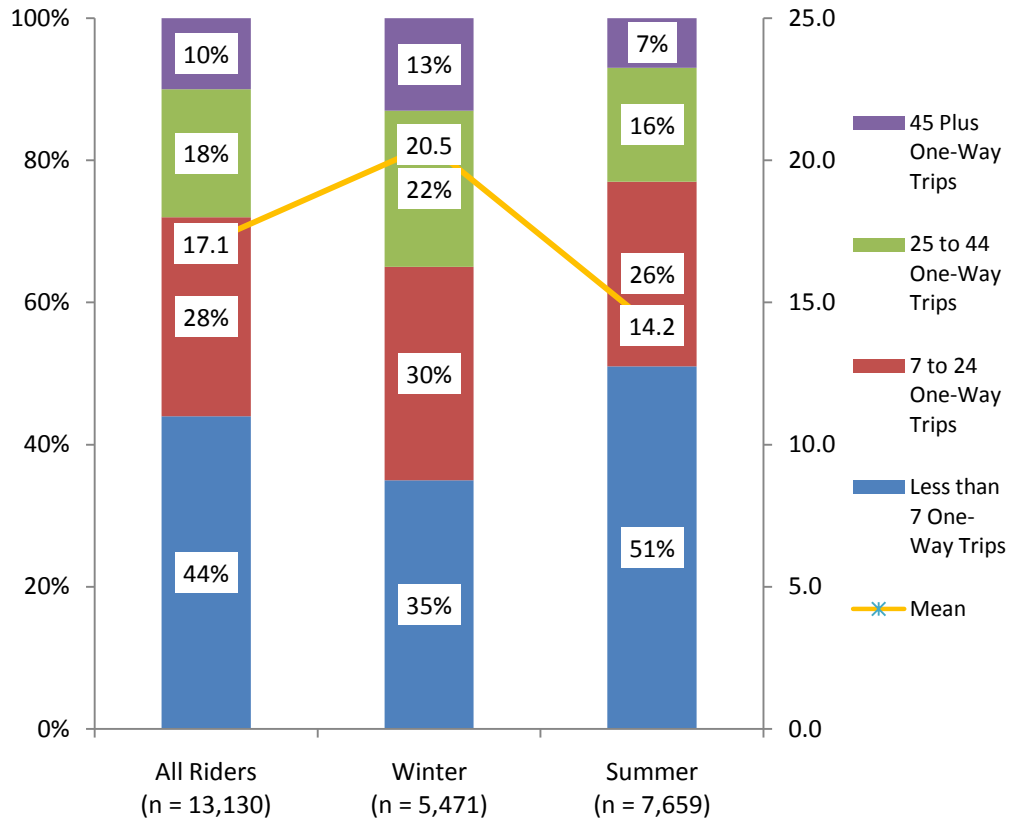
Forty-four percent (44%) of all WSF riders take less than 7 one-way rides per month; an additional 28 percent of all riders take 7 to 24 one-way trips per month. On average, WSF riders take 17 one-way trips per month.

- Assuming that the majority of riders take round trips, this would suggest that the majority of riders take approximately eight (8) round trips monthly or approximately two trips per week. Consistent with the findings in the General Market & Infrequent Rider Survey, this supports a general finding of this study that WSF is a resource that serves a broad base of regular, occasional, and infrequent riders.

As expected and given the nature of summer travel on WSF, much (83%) of the increase in summer ridership is comprised of riders taking less than seven one-way trips per month.

- Over half (51%) of all summer riders take six or fewer one-way trips per month.
- Eleven percent (11%) of all summer riders takes less than one (1) one-way trip monthly; an additional 18 percent summer riders takes two (2) one-way trips monthly or the equivalent of one round trip. This provides further support to the discussion on trip purpose that WSF's regular riders continue to ride during the summer and the increased ridership is largely driven by infrequent, occasional, and one-time riders.

Figure 9: Total Number of One-Way Trips / Month



Demographics: Frequency of Riding

The demographic characteristics of WSF's most frequent riders generally match the demographics of those whose primary trips are commute trips. In fact, 80 percent of those taking 25 to 44 one-way trips per month and 86 percent of those taking 45 or more trips monthly are commuters. Specifically, those taking 25 or more one way trips a month are more likely to be. . .

- Men (56%) than women (44%).
- Between the ages of 35 and 54.
- Employed full time (86%).
- More affluent – median household incomes in excess of $86,000 per year.

On the other hand, the majority of WSF's occasional riders (those taking 24 or fewer one-way trips monthly) is more diverse. There are several differences of note.

- Occasional riders are more likely to be women (55%) than men (45%).
- A significant number (21%) of occasional riders are retired.
- On the other hand and while a relatively small number, a significant segment (7%) of occasional riders are younger (between the ages of 16 and 24).

Table 39: Demographic Characteristics of WSF Riders Based on Frequency of Riding

	All Riders (Winter & Summer)				
	All Riders (n=13,130)	< 7 (n= 4,733)	7 – 24 (n=3,121)	25 – 44 (n=2,673)	45 + (n=1,480)
Gender					
Male	48%	44%	48%	**55%**	**59%**
Female	52%	**56%**	**52%**	45%	41%
Age					
16 – 17	1%	**1%**	**1%**	0%	1%
18 – 24	6%	**7%**	**5%**	4%	4%
25 – 34	11%	14%	8%	10%	11%
35 – 44	17%	16%	14%	**21%**	**19%**
45 – 54	25%	23%	22%	**32%**	**35%**
55 – 64	26%	23%	**30%**	27%	27%
65 +	14%	17%	19%	5%	2%
Median	51.0	50.3	54.6	49.5	49.1
Employment					
Full-Time	61%	53%	50%	**83%**	**92%**
Part-Time/Student	15%	1%	2%	1%	0%
Retired	16%	**21%**	**22%**	3%	0%
Other	7%	9%	8%	2%	1%
Household Income					
< $15,000	4%	5%	3%	2%	1%
$15,000 - $35,000	10%	11%	9%	8%	6%
$35,000 - $50,000	11%	12%	11%	10%	10%
$50,000 - $75,000	21%	21%	22%	21%	21%
$75,000 - $100,000	19%	19%	17%	21%	19%
$100,000 - $150,000	20%	17%	21%	24%	25%
$150,000 Plus	15%	15%	16%	14%	17%
Median	$80,703	$77,161	$81,089	$86,200	$89,949

Boarding Mode Results: Frequency of Riding

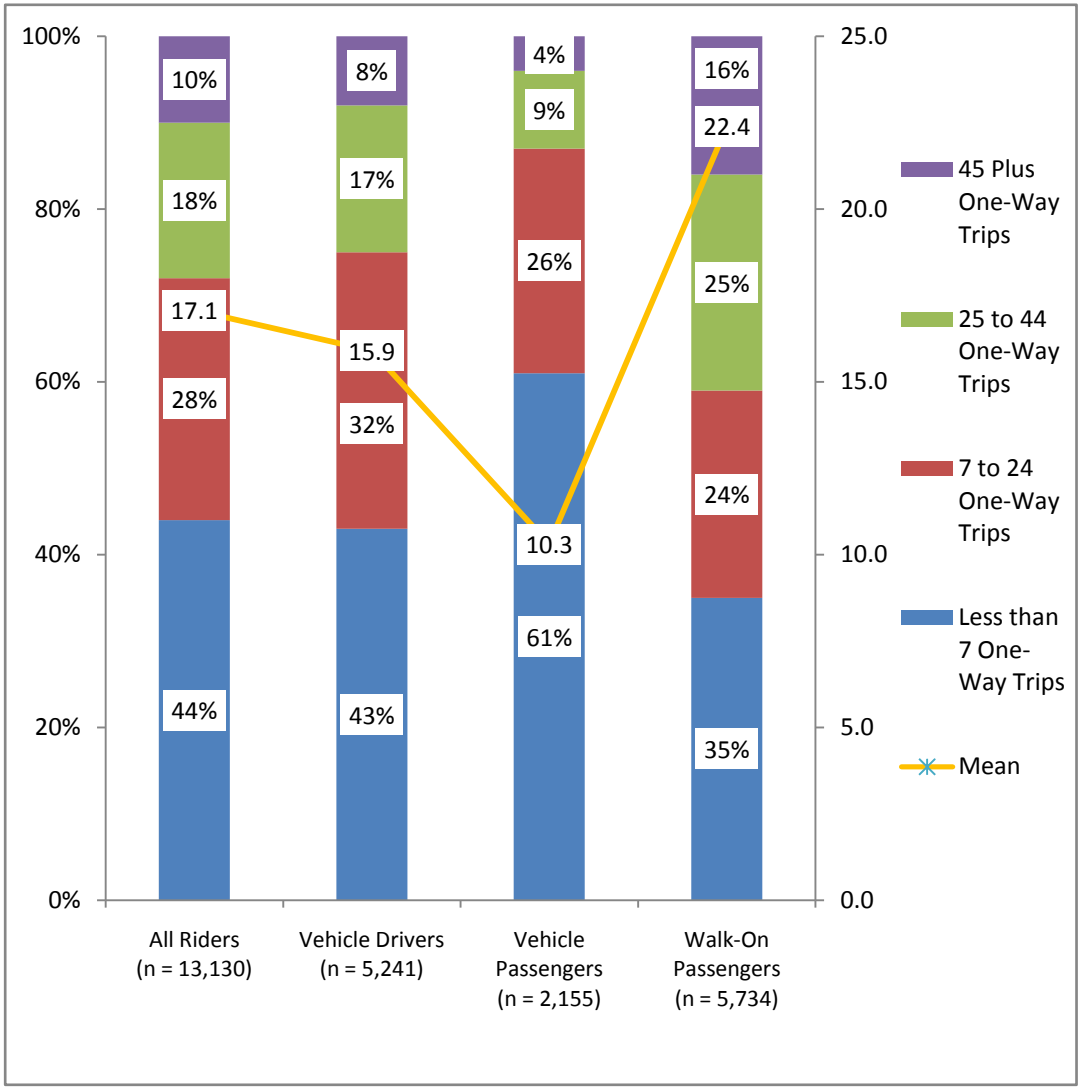
WSF's most frequent riders are walk-on passengers.

- More than two out of five (41%) walk-on passengers take 25 or more one-way trips per month; they average just over 22 trips.

Vehicle drivers' travel behavior is more diverse and generally matches the overall profile of WSF riders.

- Only one out of four (25%) vehicle drivers take 25 or more one-way trips. One-third (32%) takes between 7 and 24 trips per month; 43 percent takes less than 7. On average, vehicle drivers take 16 one-way trips per month.
- Therefore, to affect vehicle traffic on the ferry, it will be necessary to encourage a fairly significant number of passengers to make a reduction in the relatively few number of trips they take.

Figure 10: Frequency of Riding by Boarding Mode



Route Level Results: Frequency of Riding

The total number of trips taken by riders on each route is in part a factor the types of trips they take most often. For example, commuters are more likely to be frequent riders. As a result, routes with a higher than average percentage of commuters have more frequent riders.

- Five routes carry an above average percentage of those traveling for commute trips – Seattle / Bainbridge (36%), Seattle / Bremerton (46%), Fauntleroy / Vashon (38%), Fauntleroy / Southworth (42%), and Point Defiance / Tahlequah (48%). As a result, riders on these routes are the system's most frequent riders.
- Conversely, riders on those routes that are dominated by recreation trips – Keystone / Port Townsend and the Anacortes routes – have the highest percentage of infrequent riders.

Table 40: Frequency of Riding by Route

	All Riders (n=13,130)	SEA/ BAIN (n=4,600)	SEA/ BRE (n=1,567)	EDM/ KIN (n=2,413)	MUK/ CLI (n=1,789)	FAU/ VAS (n=503)	FAU/ SOU (n=547)	PTD/ TAH (n=147)	KEY/ PTT (n=432)	ANA/ SAN (n=923)	ANA/ SID (n=209)
< 7 Trips / Month	44%	38%	39%	52%	39%	24%	37%	25%	**74%**	**84%**	**96%**
Winter	35%	33%	34%	43%	28%	14%	28%	16%	63%	77%	n.a.
Summer	51%	43%	43%	61%	50%	33%	43%	32%	83%	88%	96%
7 - 24 One-Way Trips	28%	28%	23%	27%	**37%**	33%	31%	26%	17%	14%	3%
Winter	30%	26%	21%	31%	42%	29%	36%	28%	21%	19%	n.a.
Summer	26%	30%	25%	23%	32%	36%	27%	24%	14%	10%	3%
25 - 44 One-Way Trips	18%	**21%**	**26%**	15%	15%	**24%**	**24%**	**34%**	5%	2%	1%
Winter	22%	**25%**	**31%**	18%	17%	**29%**	**26%**	**34%**	9%	3%	n.a.
Summer	16%	**18%**	**23%**	13%	13%	**20%**	**22%**	**34%**	1%	2%	1%
45 + One-Way Trips	10%	12%	11%	6%	9%	**19%**	8%	15%	4%	<1%	0%
Winter	13%	**16%**	14%	7%	13%	**28%**	10%	22%	6%	<1%	n.a.
Summer	7%	9%	9%	4%	6%	12%	7%	10%	2%	<1%	0%
Mean	17.1	**19.6**	**21.3**	13.4	16.3	**24.6**	19.1	**24.0**	7.6	4.1	1.9
Winter	20.5	**22.8**	**23.9**	15.9	**19.7**	**30.8**	21.6	**28.8**	11.3	5.3	n.a.
Summer	14.2	**16.8**	**19.1**	11.1	13.1	**19.2**	**17.3**	**20.1**	4.7	3.4	1.9

Percentage of Total Trips Represented by the Sampled Trip

As noted above, respondents provided information for the total number of trips they make per month that are the same as the trip on which they were sampled, and for the total number of additional trips they make.

On average, riders take a total of 17 one-way trips monthly. Of these trips, respondents report that an average of 75 percent of their trips are the same as the trip they were taking when sampled. This is typical of on-board surveys in that it is common to capture riders on their most frequent trip.

This analysis provides insight into the extent to which WSF riders take trips other than their primary trip.

- Fauntleroy / Vashon riders are WSF's most frequent riders (24.6 one-way trips per month). In addition, riders on this route are the most likely to take trips other than their sampled trip. Only 70 percent of all trips taken by individual riders on this route are represented by their sampled trip. These findings – both the frequency of riding and the fact that they take a greater percentage of trips other than their sampled trip – most likely reflects the fact that this route serves an island community where the ferry is their only transportation off the island.
- Point Defiance / Tahlequah riders are also relatively frequent riders (24 one-way trips monthly). Riders on this route also take a somewhat higher than average percentage of trips that are for purposes other than their sampled trips (27%). (Tahlequah is on Vashon Island.)
- Seattle / Bremerton riders are also relatively frequent riders (21 one-way trips monthly). However, four out of five (80%) of these trips are for their sampled trip purpose, suggesting that they do not use the ferry for other travel.
- Fauntleroy / Southworth riders also have a higher than average percentage of trips that are for their sampled trip purpose (82%). These riders are the least likely to take trips for trips other than their primary trip.

Table 41: Sampled Trips as a Percent of All Trips Taken

	Average # of Trips / Month – Sampled Trip	Average # of Total Trips / Month	Sampled Trips as a % of All Trips Taken
All Respondents	13.1	17.1	75%
SEA / BAI	15.0	19.6	73%
SEA / BRE	17.9	21.3	80%
EDM / KIN	10.5	13.4	76%
MUK / CLI	12.2	16.3	74%
FAU / VAS	17.5	24.6	70%
FAU / SOU	16.2	19.1	82%
PTD / TAH	18.3	24.0	73%
KEY / PTT	5.2	7.6	73%
ANA / SAN	2.7	4.1	73%
ANA / SID	1.0	1.9	74%

The percentage of sampled trips as a percent of all trips taken is computed at the respondent level. Therefore, dividing the average number of sampled trips by the average number of total trips may not equal the percentage averaged across all respondents.

Time of Day / Week Travel Analysis: Frequency of Riding

Nearly half (48%) of those who travel during peak weekday periods take 25 or more one-way rides per month. Conversely, the majority of those traveling off-peak weekdays (76%) and weekends (90%) take less than 25 one-way trips per month.

- This varies significantly by season. Fifty-eight percent (58%) of winter riders traveling during peak weekday periods take 25 or more one-way rides per month compared to 39 percent in the summer. This clearly illustrates the significant increase in recreation / leisure travel during the summer months as well as the fact that more than three out of five (61%) peak weekday summer travelers are infrequent or occasional riders.

Consistent with the analysis done for trip purpose, nearly two-thirds (64%) of those walking on the ferry during peak weekday hours are regular riders – taking 25 or more one-way rides per month. However, the relatively high percentage of peak weekday vehicle drivers who take less than 7 one-way trips (32%) or between 7 and 24 one-way trips (30%) is noteworthy.

Table 42: Frequency of Riding by Time of Day / Week Travel and Boarding Mode

			Peak Weekday				Off-Peak Weekday				Weekend		
	All Riders (n=13,130)	Total Peak Weekday (n = 6,192)	Vehicle Driver (n = 2,219)	Vehicle Passenger (n = 685)	Walk-On (n = 3,288)	Total Off-Peak Weekday (n = 3,278)	Vehicle Driver (n = 1,512)	Vehicle Passenger (n = 584)	Walk-On (n = 1,182)	Total Weekend (n = 3,660)	Vehicle Driver (n = 1,510)	Vehicle Passenger (n = 886)	Walk-On (n = 1,264)
All Riders (Winter & Summer)													
Less than 7	44%	28%	**32%**	**52%**	16%	43%	39%	**61%**	36%	**65%**	61%	68%	67%
7 to 24	28%	24%	**30%**	25%	20%	33%	36%	26%	33%	25%	28%	26%	22%
25 to 44	18%	**30%**	25%	15%	39%	17%	19%	9%	21%	6%	7%	5%	5%
45 Plus	10%	**18%**	13%	8%	25%	7%	6%	4%	10%	4%	4%	2%	6%
Mean	17.1	25.2	21.5	14.3	32.0	15.9	16.2	10.2	19.0	9.2	9.6	7.5	10.0
Winter													
Less than 7	35%	20%	24%	43%	9%	35%	32%	47%	33%	54%	50%	57%	57%
7 to 24	30%	23%	30%	25%	15%	34%	37%	32%	31%	33%	34%	35%	28%
25 to 44	22%	35%	28%	22%	44%	21%	23%	13%	22%	7%	9%	6%	6%
45 Plus	13%	23%	18%	10%	31%	10%	9%	8%	14%	6%	7%	2%	8%
Mean	20.5	29.3	25.2	18.1	36.3	19.2	19.4	14.9	21.2	11.7	12.6	9.5	12.6
Summer													
Less than 7	51%	34%	40%	58%	21%	49%	46%	69%	38%	74%	72%	77%	73%
7 to 24	26%	26%	30%	25%	24%	32%	35%	23%	34%	19%	21%	18%	18%
25 to 44	16%	26%	22%	11%	35%	15%	15%	6%	20%	5%	6%	4%	5%
45 Plus	7%	13%	9%	6%	20%	4%	4%	2%	8%	2%	1%	1%	4%
Mean	14.2	21.7	17.8	11.6	28.3	13.3	13.3	7.7	17.4	7.0	6.7	5.8	8.37

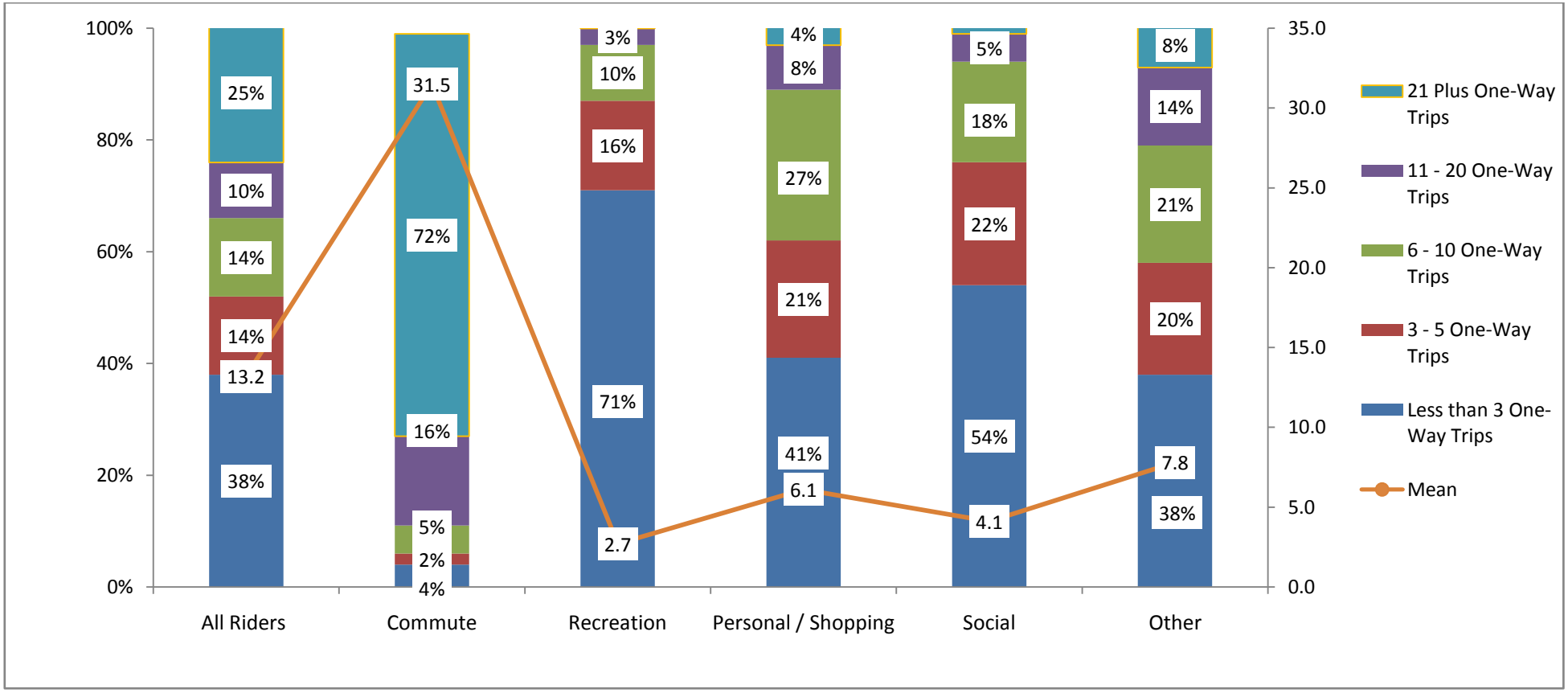
Other Significant Findings: Frequency of Taking Sampled Trip by Purpose of Sampled Trip

As noted on page 82, an average of 75 percent of all trips taken by WSF riders are for the purpose on their sampled trip. The following analysis looks at the frequency with which riders take their sampled trip.

As would be expected, frequency of travel for their sampled (primary) trip is related to the purpose for which the rider is traveling.

- Nearly three out of four (72%) commuters take 21 or more one-way trips monthly. What is notable, however, is that the average number of commute trips per month is 31.5. Assuming round trips, this suggests that most commuters travel 15 to 16 days per month, far fewer than the typical 21 to 22 working days per month. Even those who are employed full-time average just under 33 one-way trips monthly.

Figure 11: Frequency of Taking Sampled Trip by Purpose of Sampled Trip

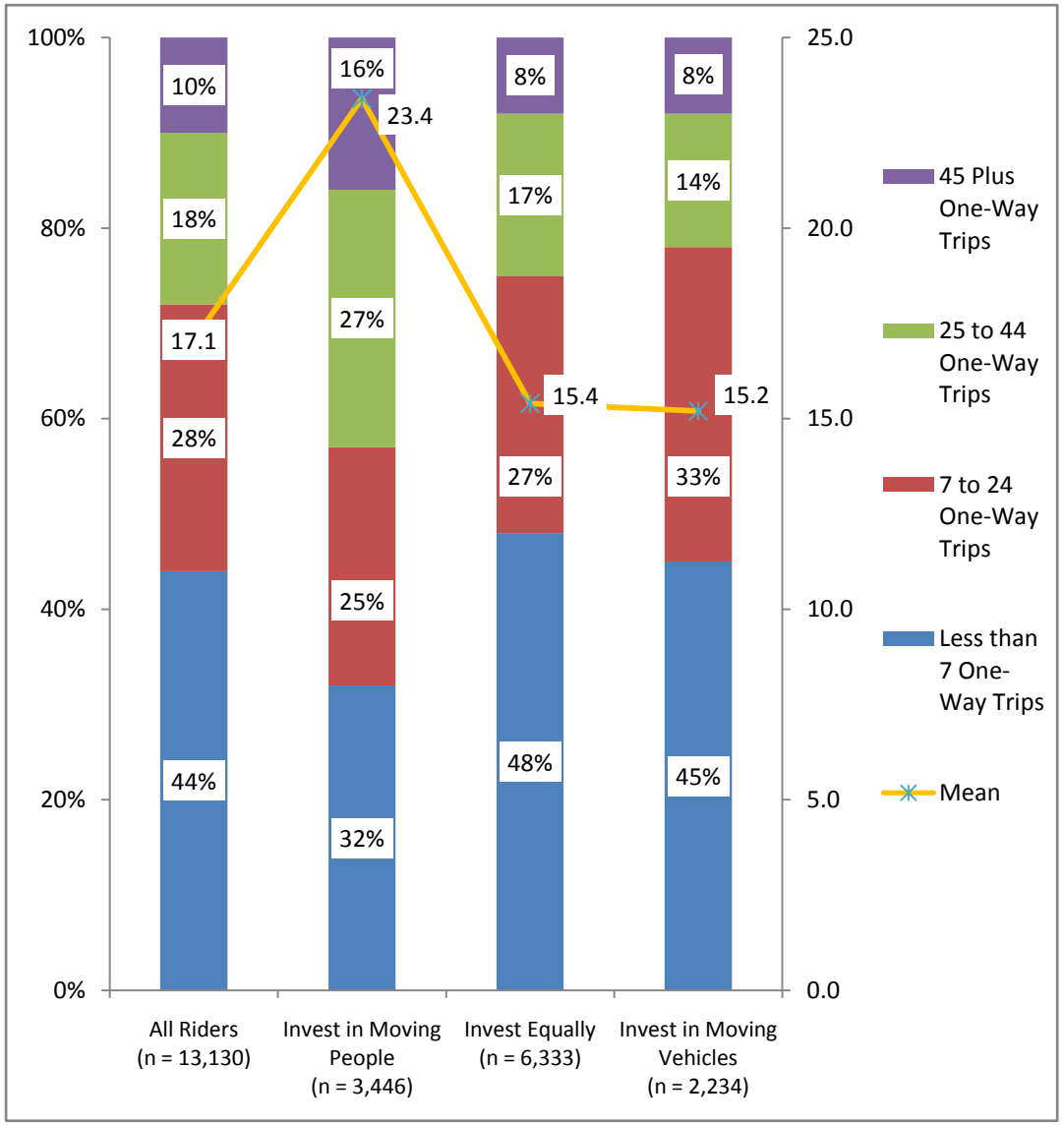


Other Significant Findings: Frequency of Riding by Attitudes toward How WSF Should Focus Its Improvements

Those who feel WSF should invest in moving people are more likely to be frequent riders.

- Forty-three percent (43%) of those who feel WSF should invest in moving people take 25 or more one-way riders per month.
- However, this finding is primarily driven by walk-on passengers who feel that WSF should invest in moving people. Fifty-two percent (52%) of walk-on passengers who take 25 or more one-way riders per month feel that WSF should invest in moving people. On the other hand, only 30 percent of vehicle drivers who feel that WSF should invest in moving people are frequent riders.

Figure 12: Frequency of Riding by Attitudes toward How WSF Should Focus Its Improvements



Detailed Findings: Change in Frequency of Riding

Of some concern to the legislature and representatives of the communities served by WSF is the extent to which riders have decreased the frequency with which they ride due to fares and/or level of service. Two questions were included to measure the extent to which riders have increased or decreased the frequency with which they ride and the reasons for that change.

All Riders: Change in Frequency of Riding

Less than one out of four (23%) riders says they are riding less.

- Winter riders are somewhat more likely than summer riders to say they are riding less – 24 percent compared to 21 percent, respectively.

Sixty-two percent (62%) of riders (winter and summer) who say they are riding less cite a change in circumstances: change job / school (31%), retirement (14%), change in residence (15%), or another change in personal circumstances (11%).

- Twenty-six percent (26%) of those who say they are riding less cite a problem with ferry service. The cost of fares is mentioned most often (24%).
- Six percent (6%) of those who ride less say they telecommute.

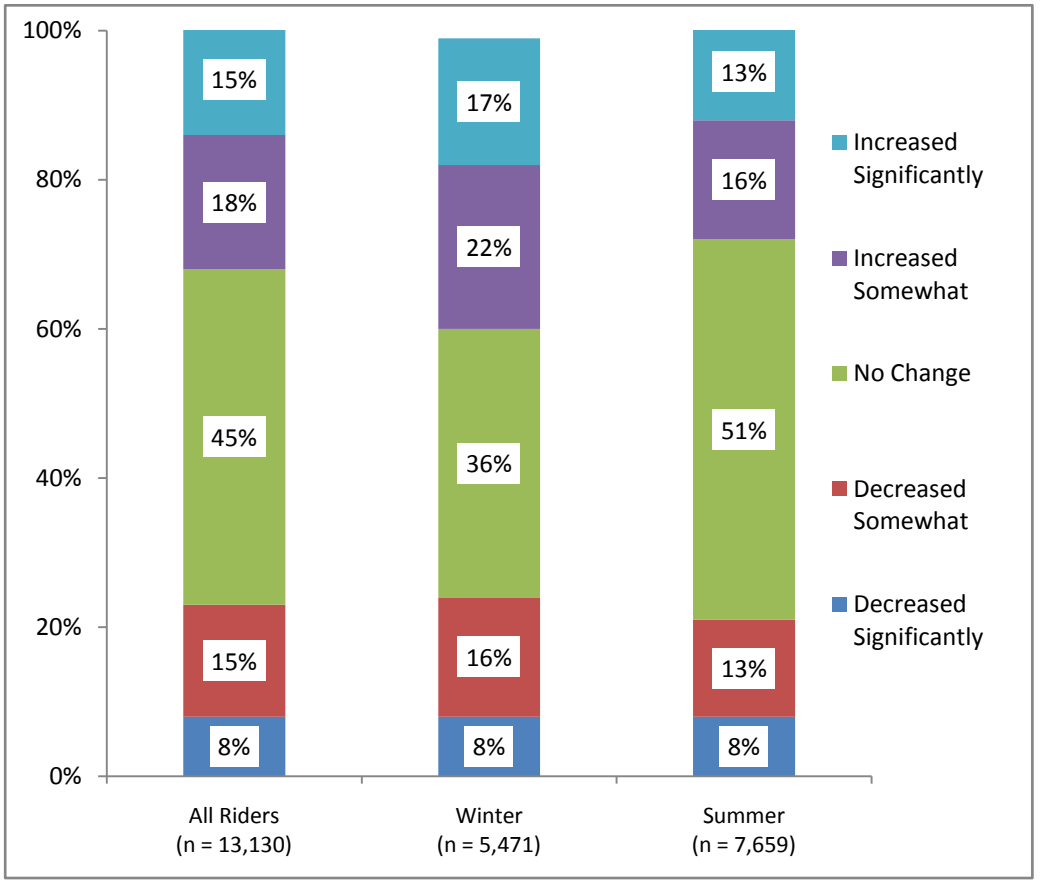
More riders say they are riding more rather than riding less. One out of three (33%) of all WSF riders suggest they are riding more than in the past – 15 percent says it has increased significantly.

- Winter riders are more likely than summer riders to say they are riding more – 39 percent compared to 29 percent, respectively.
- Moreover, more winter riders suggest that their ridership has increased than decreased – 39 percent compared to 24 percent, respectively.

Eighty-seven percent (87%) of those who suggest they are riding more say their circumstances (work or personal) have changed.

- Changes in work or school circumstances are mentioned most (50%). Others report moving residences (23%).

Figure 13: Change (self-reported) in Frequency of Riding



Question: Since you started riding the ferries, has the frequency with which you ride increased, decreased, or not changed?

Boarding Mode (Sampled Trip) Results: Change in Frequency of Riding

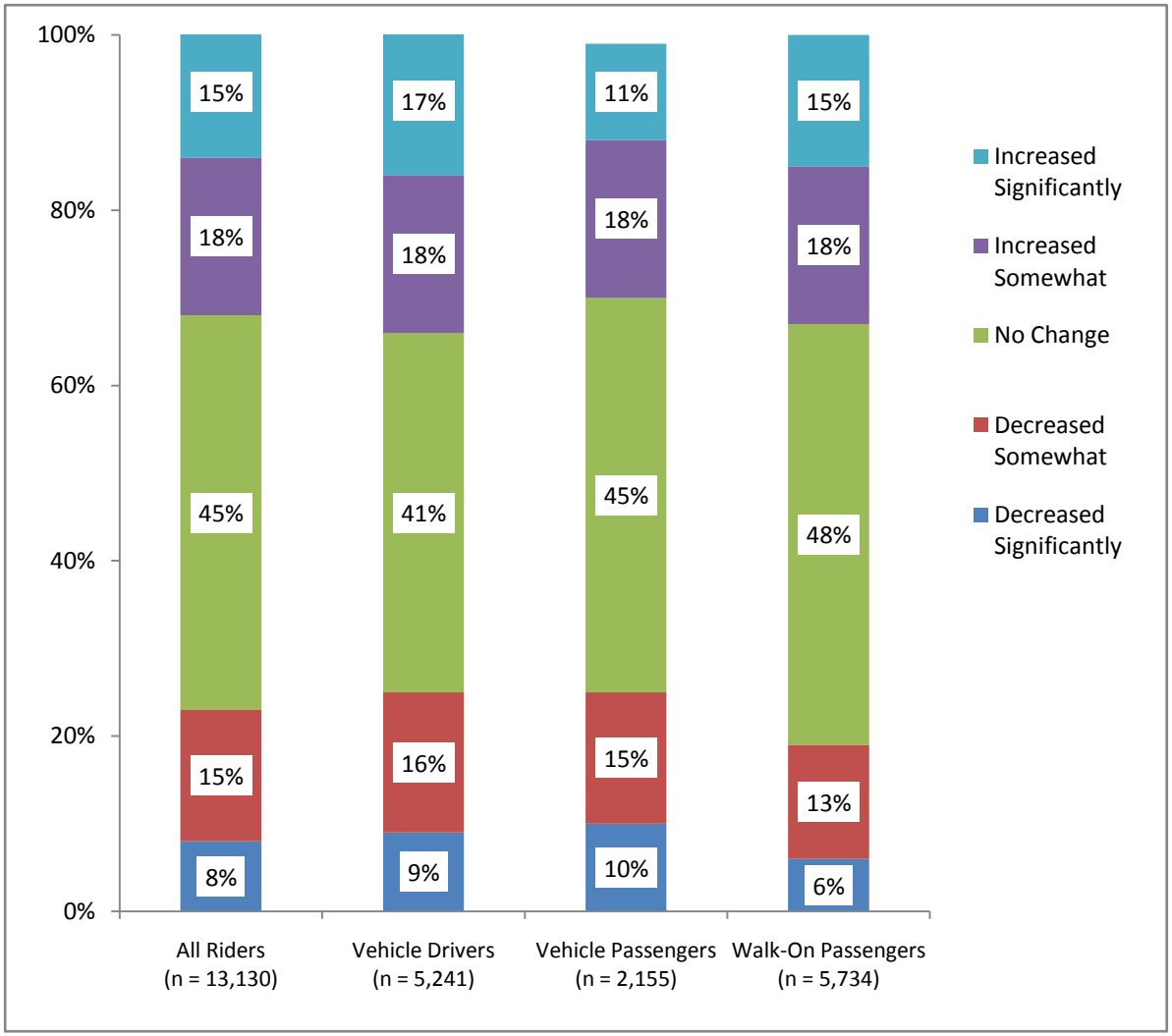
Vehicle drivers are the most likely to report that they have increased (35%) or decreased (25%) the frequency with which they ride. These changes are of concern since this is the segment that places the greatest burden on the system.

- Winter vehicle drivers are more likely than summer drivers to suggest the frequency with which they ride has increased – 42 percent compared to 29 percent, respectively.
- Just under half (47%) of summer vehicle drivers say they have not changed their ridership behavior.

Walk-on passengers are most likely to say that they have not changed the frequency with which they ride (48%).

- At the same time, somewhat more walk-on passengers say they are riding more (33%) than riding less (19%).

Figure 14: Change (self-reported) in Frequency of Riding by Boarding Mode (Sampled Trip)



Question: Since you started riding the ferries, has the frequency with which you ride increased, decreased, or not changed?

Route Level Results: Change in Frequency of Riding

No single route has experienced significant decrease in ridership because of a self-reported change in individual riders' behavior.

Riders on three routes report some increase in ridership.

- Riders on the Fauntleroy / Southworth route are the most likely to suggest they are riding more than in the past. This is notable among winter riders – 50 percent say they are riding more.
- A slightly above-average percentage of Edmonds / Kingston riders say they are riding more (35%). This is significant among winter riders – 41 percent say they are riding more.
- Finally, while overall riders on Keystone / Port Townsend match the profile of WSF riders generally, winter riders on this route are significantly more likely than summer riders to say the frequency with which they ride has increased – 46 percent compared to 23 percent, respectively. Summer riders are more likely than winter riders to say their behavior has not changed – 57 percent compared to 30 percent, respectively. This route experienced several changes in service while the surveys were being conducted. The Steel Electric ferries were retired from service before the winter survey period. In addition, a reservation system was introduced prior to the summer survey period.

Riders on the Point Defiance / Tahlequah route are most likely to say they have not changed the frequency with which they ride.

Table 43: Change (self-reported) in Frequency of Riding by Route

	All Riders (n=13,130)	SEA/ BAIN (n=4,600)	SEA/ BRE (n=1,567)	EDM/ KIN (n=2,413)	MUK/ CLI (n=1,789)	FAU/ VAS (n=503)	FAU/ SOU (n=547)	PTD/ TAH (n=147)	KEY/ PTT (n=432)	ANA/ SAN (n=923)
Net Increase	33%	30%	34%	35%	37%	35%	**37%**	25%	32%	28%
Increased Significantly	15%	13%	16%	16%	18%	16%	17%	13%	13%	11%
Increased Somewhat	18%	17%	18%	19%	19%	19%	21%	12%	19%	17%
No Change	45%	45%	48%	43%	40%	41%	46%	**53%**	46%	48%
Decreased Somewhat	15%	16%	11%	14%	16%	16%	12%	15%	11%	16%
Decreased Significantly	8%	9%	7%	9%	8%	8%	4%	6%	11%	7%
Net Decrease	23%	25%	18%	23%	24%	24%	16%	21%	22%	23%

Question: Since you started riding the ferries, has the frequency with which you ride increased, decreased, or not changed?
Anacortes / Sidney not included due to nature of service.

Time of Day / Week Travel Results: Change in Frequency of Riding

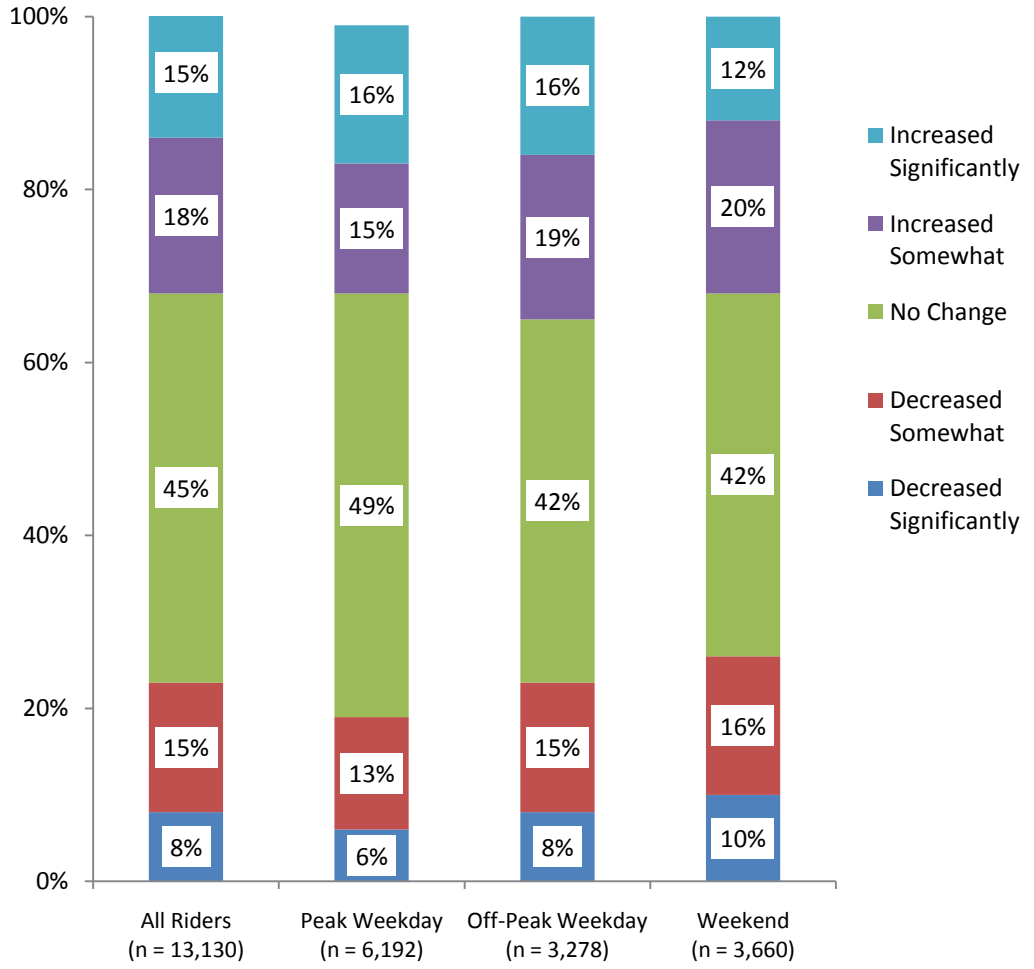
Peak weekday riders are most likely to suggest that they have not changed the frequency with which they ride.

- Nearly half (49%) of peak weekday riders say they have not changed how often they ride. This is particularly true among summer riders – 52 percent of summer peak weekday riders say they have not changed the frequency with which they ride compared to 45 percent of winter riders.
- More peak weekday winter than summer riders say that they are riding more – 36 percent compared to 28 percent, respectively.

Somewhat more weekend riders than off-peak weekday riders suggest that they have decreased the frequency with which they ride – 26 percent compared with 23 percent, respectively.

- More weekend winter riders say they are riding less than summer riders – 30 percent compared to 22 percent, respectively.

Figure 15: Change (self-reported) in Frequency of Riding by Time of Day / Week Travel



Question: Since you started riding the ferries, has the frequency with which you ride increased, decreased, or not changed?

Other Significant Results: Change in Frequency of Riding by Purpose of Sampled Trip

Commuters are more likely than riders generally to say the frequency with which they ride has not changed or that it has increased.

- Twenty-one percent (21%) of commuters suggest they are riding significantly more than in the past. This is true for both summer and winter commuters.

Those traveling for personal or shopping trips are more likely than other riders to say that they are riding less.

- Twenty percent (20%) of those traveling for personal and shopping trips say they are riding somewhat less and 13 percent says they are riding significantly less.
- This change is due in part to ferry fares – 24 percent says that high fares are causing them to ride less for these trips. However, it may also reflect the growth in shopping centers in the West Puget Sound communities, providing a less expensive travel alternative.
- The other primary reason for decreased ridership is a change in circumstances.

Table 44: Change (self-reported) in Frequency of Riding by Purpose of Sampled Trip

	All Riders (n=13,130)	Commute (n = 4,905)	Personal/ Shopping (n = 2,110)	Recreation (n = 3,040)	Social (n = 1,743)	Other (n = 1,113)
Increased	33%	36%	37%	22%	35%	36%
No Change	45%	**52%**	30%	**55%**	37%	38%
Decreased	23%	12%	**33%**	23%	28%	26%

Other Significant Results: Change in Frequency of Riding by Current Frequency of Riding

Consistent with the finding that peak weekday riders are most likely to suggest that they have not changed the frequency with which they ride, WSF's most frequent riders are the most likely to say that the frequency with which they ride has not changed – 49 percent for those taking 25 to 44 one-way trips per month and 52 percent for those taking 45 or more one-way trips monthly.

- In addition, WSF's most frequent riders are the least likely to suggest that the frequency with which they ride has decreased. Only 15 percent of those who currently take 25 to 44 one-way trips monthly and just 6 percent of those who currently take 45 plus trips monthly say they are riding less.

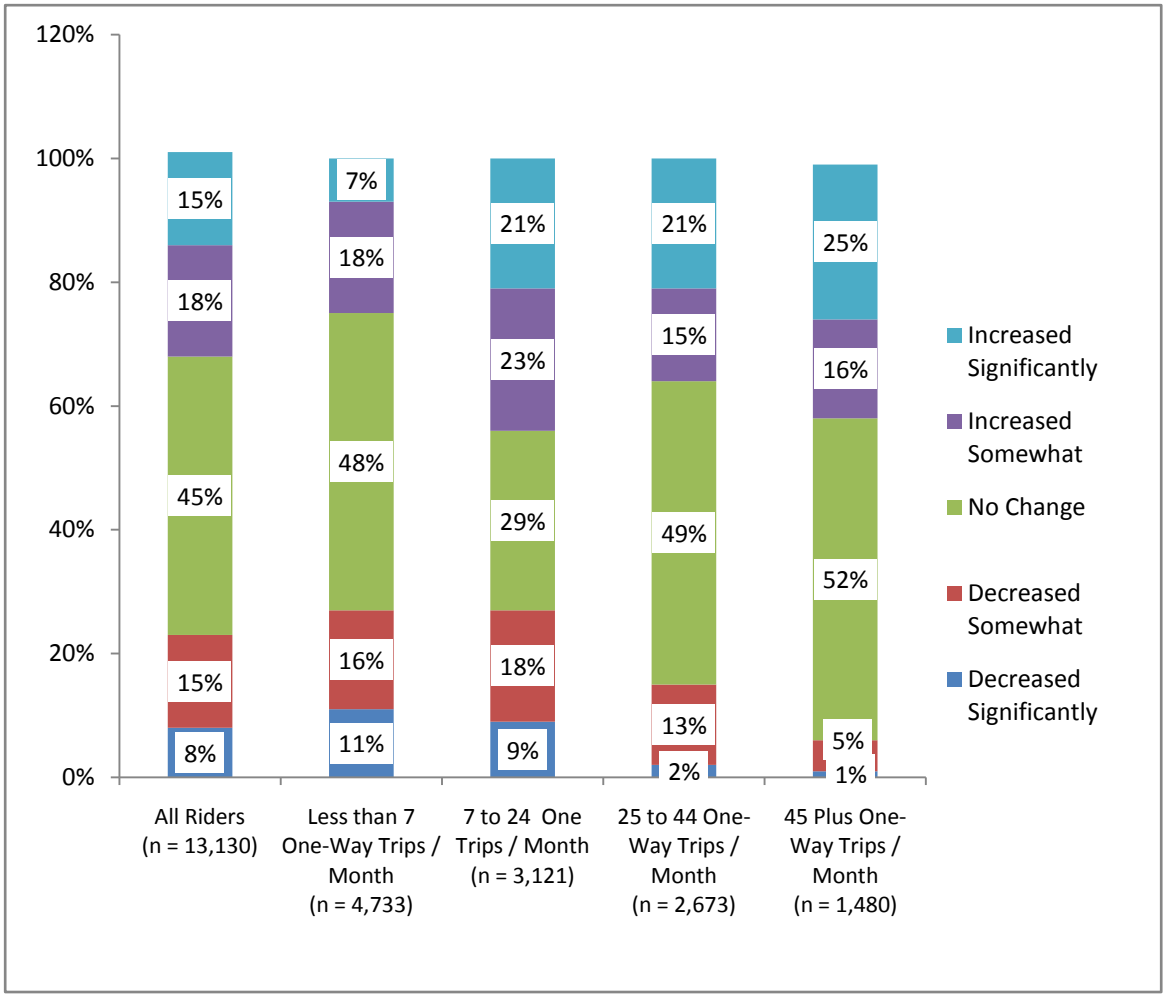
WSF's occasional riders (those taking fewer than 7 trips per month) are the most likely to say the frequency with which they ride has not changed (48%). However, 27 percent say they are riding less.

- The primary reason given for riding less is some kind of change in circumstances (62%),

It is the segment of riders who currently takes 7 to 24 one-way trips per month who are the most likely to suggest that the frequency with which they ride has changed. Somewhat more say they are riding more than less – 44 percent ride more compared to 27 percent who ride less.

- Again the primary reason given for riding less is a change in circumstances (66%). .

Figure 16: Change (self-reported) in Frequency of Riding by Current Frequency of Riding



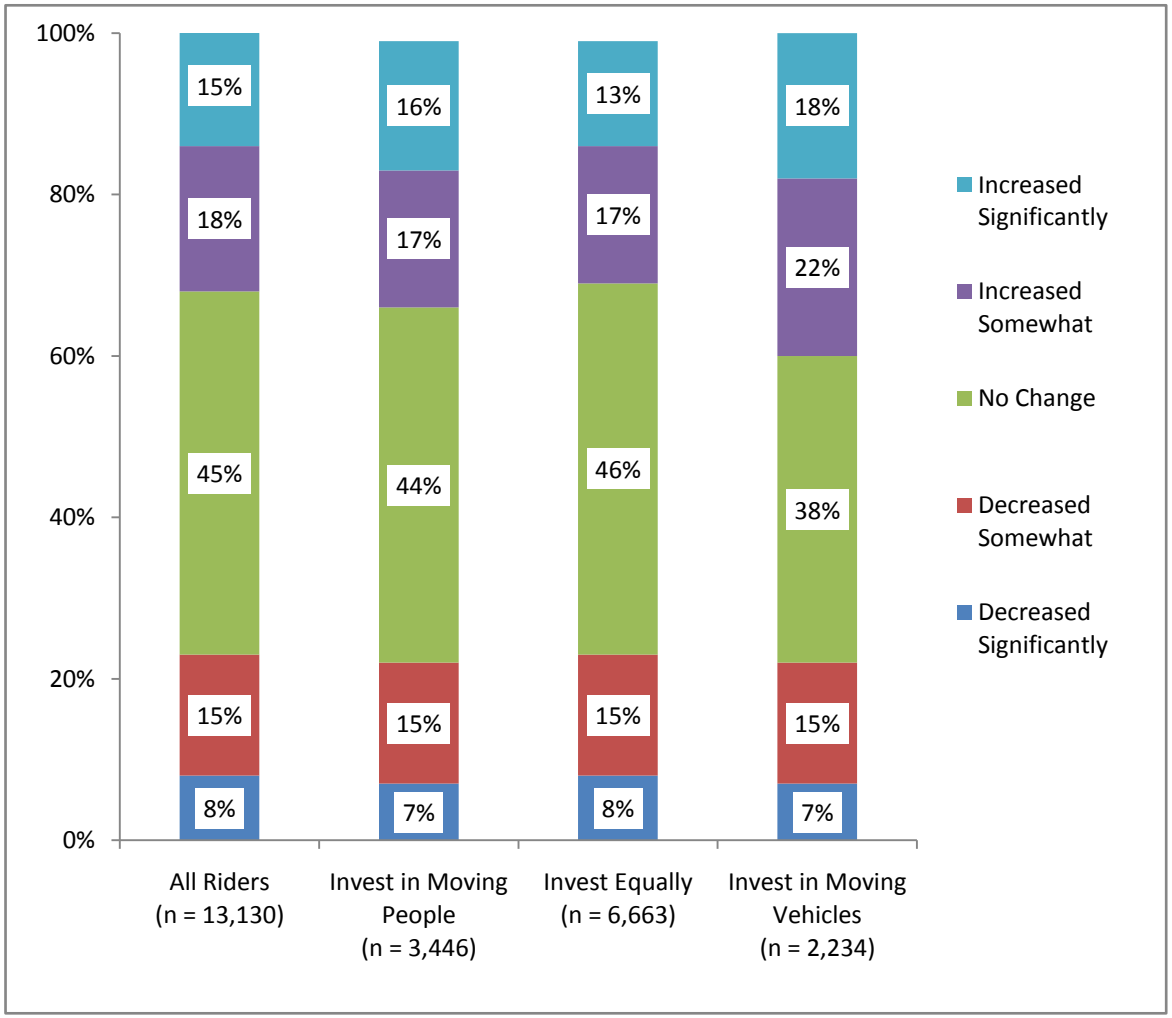
Question: Since you started riding the ferries, has the frequency with which you ride increased, decreased, or not changed?

Other Significant Results: Change in Frequency of Riding by Attitudes toward How WSF Should Focus Its Improvements

Riders who say that WSF should focus its investment in improving how it moves vehicles are more likely than those who suggest WSF should invest equally and those who say the system should invest in moving people are also more likely to say that the frequency with which they ride has increased.

- Two out of five (40%) riders who say WSF should invest in moving vehicles also say that they are riding more often – 18 percent says that the frequency with which they ride has increased significantly.
- Somewhat more (42%) vehicle drivers who say WSF should invest in moving vehicles also say they are riding more – 21 percent says that they are riding significantly more.

Figure 17: Change (self-reported) in Frequency of Riding by Attitudes toward How WSF Should Focus Its Improvements



Question: Since you started riding the ferries, has the frequency with which you ride increased, decreased, or not changed?

Detailed Findings: Most Common Boarding Mode

The qualitative research clearly suggested that WSF riders may use multiple modes and/or drive on only when they need to. A key requirement, therefore, in the on-board research was to determine the extent to which riders drive onto the ferry – as a driver or as a passenger in a vehicle versus walk or bicycle on. Therefore, questions were included in the on-board surveys to estimate the extent to which passengers walk on, drive on, or use some other mode to access the ferry. This was accomplished by asking them the total number of trips they take and then to distribute these trips across different modes of travel – drive on, walk-on, motorcycle, or some other mode.

Results from these questions were used to group riders into six segments, those who:

1. Drive on (as a driver or passenger in a vehicle) 100 percent of the time,
2. Drive on (as a driver or passenger in a vehicle) more often than they walk-on,
3. Drive on an equal amount of the time as they walk on,
4. Walk or bicycle on more often than they drive on,
5. Walk or bicycle on 100 percent of the time, and
6. Predominantly use some other mode (e.g., motorcycle, vanpool).

Note that vehicle passengers and bicyclists are included as walk-on passengers; fare policies generally treat these segments as walk-on passengers. Vehicle drivers and vehicle passengers are included as drive-on passengers to better understand the extent of vehicle demand.

All Riders: Most Common Boarding Mode(s) for All Trips – Overall and by Season

Two out of five (41%) WSF riders drive onto the ferry (as a driver or as a passenger in a vehicle) 100 percent of the time.

- There are no significant differences in the percentage of "100% Drivers" between winter and summer travelers.

An additional 14 percent of WSF riders drive on more often than they walk on.

- Somewhat more winter riders drive on more than they walk in the winter than in the summer months – 16 percent versus 13 percent. This may reflect the influence winter weather has on mode choice.

Eleven percent (11%) of all WSF riders walks or bikes onto the ferry 100 percent of the time. An additional 17 percent walks / bikes on more often than they drive on.

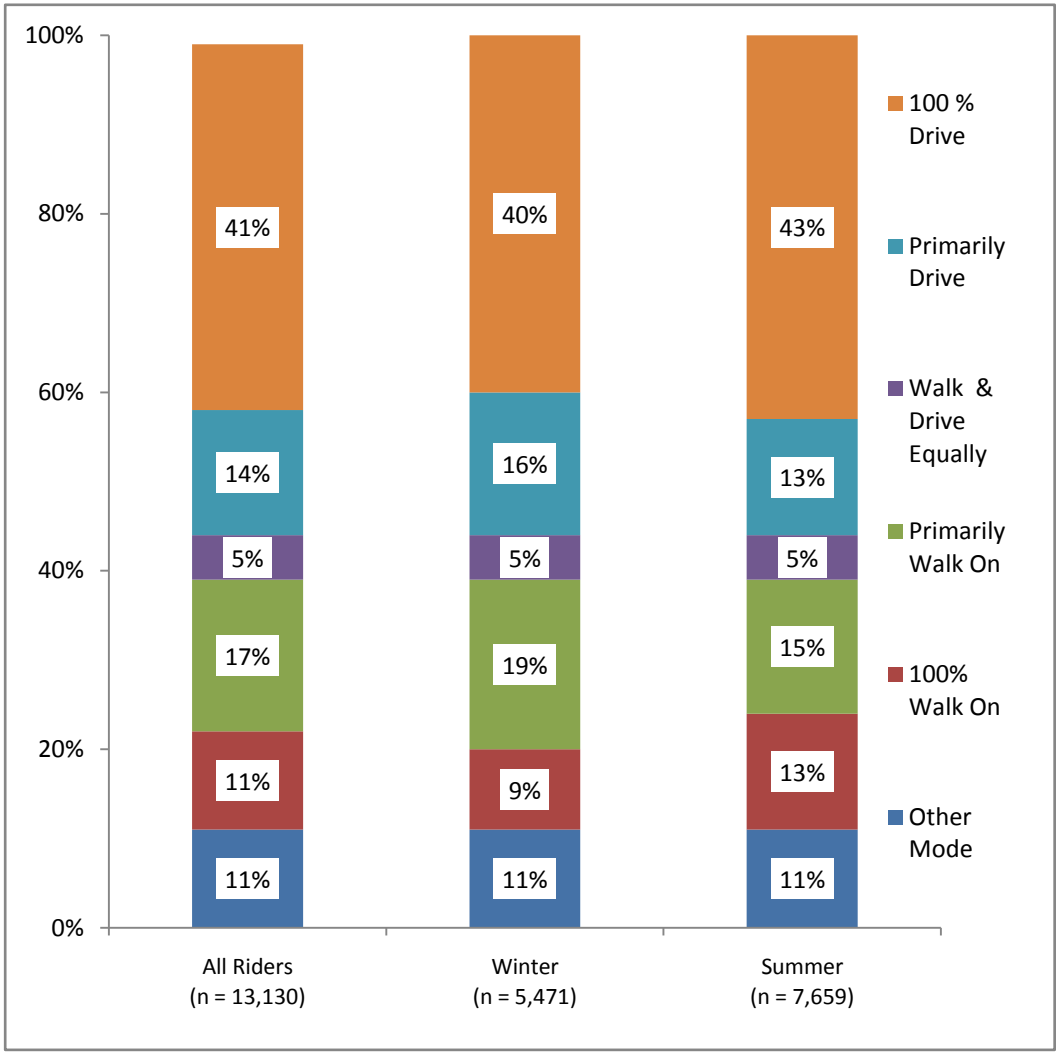
- A greater percentage of summer than winter riders suggest they walk or bike on 100 percent of the time – 13 percent compared with 9 percent, respectively.

- Conversely, a greater percentage of winter than summer riders suggests they walk or bike on most of the time – 19 percent compared with 15 percent, respectively. As with the seasonal differences noted for drivers, the seasonal differences among these riders most likely reflects the weather.

A relatively small segment (5%) suggests they drive and walk on an equal amount.

Finally, 11 percent of all WSF passengers primarily access the ferry through some other mode – this includes motorcycles, scooters, registered carpools, or vanpools.

Figure 18: Most Common Boarding Mode(s) for All Trips



Computed variable based on the number of trips respondents report taking by each mode divided by the total number of trips they report taking each month.

Boarding Mode (Sampled Trip) Analysis: Most Common Boarding Mode(s) for All Trips

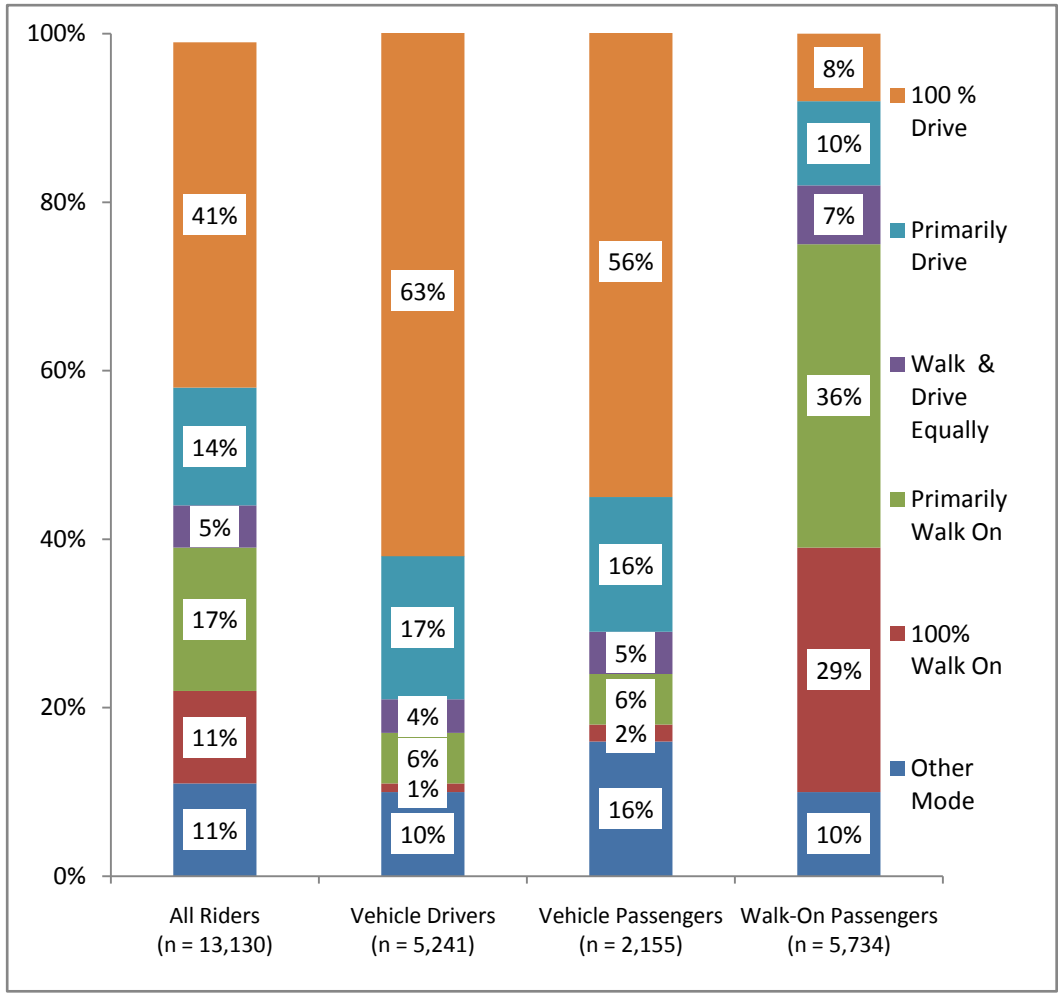
Those driving onto the ferry as a vehicle driver on their sampled trip do so regularly.

- Sixty-three percent (63%) of those who drove on the ferry for their sampled trip drive onto the ferry 100 percent of the time.
  - For the trip on which they were sampled, 70 percent of vehicle drivers drive on for that trip 100 percent of the time.
- An additional 17 percent drives on most of the time.
- Therefore, results show that four out of five (80%) of those identified as vehicle drivers in their sampled trip drive onto the ferry for more than half of their trips.
- Only 7 percent of those identified as vehicle drivers through their sampled trip walk onto the ferry more than they drive on.
- There are no seasonal differences in the extent to which vehicle drivers report driving onto the ferry.

Those who walked onto the ferry for their sampled trips also walk on the majority of the time for all of their trips. However, those identified as walk-on passengers through their primary trip are more diverse in their regular travel behavior.

- Twenty-nine percent (29%) of those identified as walk-on passengers (through their sampled trip) walk onto the ferry 100 percent of the time.
  - For the trip on which they were sampled, 51 percent of walk-on riders walk on for that trip 100 percent of the time.
- An additional 36 percent walks on more than half of the time.
- Combined, two out of three (65%) of those identified as walk-on passengers walk onto the ferry for most or all of their trips.
- On the other hand, 18 percent of those identified in their sampled trip as a walk-on passenger report that they drive on the majority of the time. It is possible that at least some of these are vehicle passengers who reported their trips as walk-on trips rather than vehicle trips.

Figure 19: Primary Boarding Mode(s) for All Trips by Boarding Mode for Sampled Trips



Computed variable based on the number of trips respondents report taking by each mode divided by the total number of trips they report taking each month.

Demographics: Most Common Boarding Mode(s) for All Trips

There are some demographic differences between these segments that provide further insights into their behaviors.

Drivers (Those who Drive On All or Most of the Time)

There are no differences in the gender split between those that drive on all of the time, most of the time, or equally. As with vehicle drivers overall, this segment tends to skew slightly male.

Those that drive on all or most of the time are older than those that walk on.

- Those that drive on 100 percent of the time are the oldest. Nearly half (47%) are 55 and older; their median age is nearly 54. Consistent with this age distribution, 23 percent are retired.
- Those that drive on most of the time are somewhat younger. More than half (56%) of these riders are between the ages of 45 and 64; their median age is 51.
- Those that drive on most of the time are more likely than those that drive on 100 percent of the time to be employed full-time – 61 percent compared to 54 percent, respectively. They are, however, less likely to be employed than those that walk on.
- Reflecting their employment status, those that drive on most of the time are more affluent than those that drive on 100 percent of the time.

Walkers (Those who Walk On All or Most of the Time)

Looking at those who walk on most or all of the time, those that walk on most of the time are somewhat more likely to be men (52%) than women (48%) while those that walk on all of the time are somewhat more likely to be women (53%) than men (47%).

Those that walk on the ferry all or most of the time are younger than those that drive.

- Those that walk on 100 percent of the time are the youngest age group. One out of four (25%) are between the ages of 18 and 34.
- Those that walk on most of the time are somewhat older. They are more likely than those that walk on 100 percent of the time to be between the ages of 35 and 44 (22%).
- Those that walk on the ferry most of the time are the most likely segment to be employed full-time (78%). While the majority of those who walk on 100 percent of the time are also employed full-time (65%), this segment is also more likely to be employed part-time or a student (19%).
- Those that walk on the ferry 100 percent of the time are the least affluent riders; 25 percent have household incomes of $35,000 or less. It is clear that the cost of riding may strongly influence this behavior.
- On the other hand, those that walk on most of the time are the most affluent riders; 44 percent have household incomes of $100,000 or more. Other factors, such as convenience, are more likely to be influencing this segment's choice to walk on.

Table 45: Demographic Characteristics of Most Common Boarding Mode Segments

	All Riders (n = 13,130)	100% Drive On (n = 4,325)	Primarily Drive (n = 1,586)	Walk / Drive Equally (n = 609)	Primarily Walk (n = 2,686)	100% Walk (n = 1,575)	Other (n = 1,228)
Gender							
Male	48%	48%	49%	48%	**52%**	47%	41%
Female	52%	52%	51%	52%	48%	**53%**	59%
Age							
16 – 17	1%	<1%	1%	2%	1%	1%	2%
18 – 24	6%	4%	5%	8%	6%	**11%**	7%
25 – 34	11%	9%	10%	11%	12%	**14%**	16%
35 – 44	17%	15%	16%	19%	**22%**	15%	17%
45 – 54	25%	23%	**28%**	24%	29%	27%	23%
55 – 64	26%	**27%**	**28%**	23%	27%	23%	23%
65 +	14%	**20%**	11%	13%	4%	8%	14%
Median	51.0	53.9	51.2	49.1	48.3	47.8	48.8
Employment							
Full-Time	61%	54%	61%	**68%**	**78%**	**65%**	60%
Part-Time / Student	15%	14%	18%	11%	14%	**19%**	16%
Self-Employed	1%	1%	1%	<1%	<1%	<1%	1%
Retired	16%	**23%**	14%	13%	5%	10%	16%
Other	7%	8%	6%	7%	3%	6%	9%
Household Income							
< $15,000	4%	2%	3%	2%	3%	**9%**	3%
$15,000 - $35,000	10%	8%	8%	13%	7%	**16%**	11%
$35,000 - $50,000	11%	12%	11%	12%	9%	10%	10%
$50,000 - $75,000	21%	23%	20%	21%	18%	21%	21%
$75,000 - $100,000	19%	20%	16%	17%	19%	17%	18%
$100,000 - $150,000	20%	18%	**24%**	18%	**27%**	18%	18%
$150,000 Plus	15%	15%	**18%**	17%	**17%**	9%	17%
Median	$80,703	$79,610	$87,005	$78,356	$91,978	$68,170	$80,543

Route Level Analysis: Most Common Boarding Mode(s) for All Trips by Route

The following analysis parallels the detailed results based on riders' boarding mode for their sampled trip shown on page 42 and WSF's ridership figures about the extent to which riders drive on / walk on the individual routes. This analysis, however, identifies some critical differences:

- **Fauntleroy / Vashon**: This route has an above-average percentage of vehicle drivers / passengers (70%). However, relative to other high vehicle traffic routes, only 41 percent drives onto the ferry all of the time. Looking at those passengers identified as vehicle drivers through their sampled trip, 58 percent drives on 100 percent of the time.
- **Mukilteo / Clinton**: This route also has an above-average percentage of vehicle drivers / passengers (80%). On this route, the highest percentage of riders (56%) report that they drive on 100 percent of the time; an additional 17 percent drives on most of the time. Combined, 73 percent of riders on this route drive onto the ferry the majority of the time. Among those identified in their sampled trip as vehicle drivers, 69 percent report that they drive on 100 percent of the time.
- **Edmonds / Kingston**: This route was also identified as having an above-average percentage of vehicle drivers through their sampled trip (74%). Here, more than half (52%) of all riders drive onto the ferry 100 percent of the time and 12 percent drive on most of the time. In much of the analysis, this route parallels findings for Mukilteo / Clinton. In terms of primary boarding mode for all trips, this is not the case. Significantly more riders on this route compared with Mukilteo / Clinton walk on at least half of the time – 24 percent compared to 18 percent, respectively.
- **Seattle / Bremerton**: As noted in other analysis, this route has the highest rate of walk-on passengers (63%) of all routes. Consistent with this analysis, 29 percent of Seattle / Bremerton riders report that they walk onto the ferry 100 percent of the time; an additional 22 percent walk on most of the time. Combined with those who walk and drive on equally, nearly three out of five (57%) of riders on this route walk on for at least half of their ferry trips.
- **Seattle / Bainbridge**: This route also carries an above-average percentage of walk-on passengers (48%). Consistent with these findings, nearly half (48%) of riders on this route walk onto the ferry for at least half of their trips. However, it is noteworthy that more than twice as many walk on for most of their trips compared with 100 percent of their trips – 29 percent compared with 13 percent, respectively – suggesting that riders on this route choose to drive on when it is convenient or necessary.
- **Port Townsend / Keystone & Anacortes / San Juans**: Both routes have an above-average percentage of riders in the "other" category. This most likely reflects the number of recreational vehicles on this route and the likelihood that respondents did not record these trips as a "vehicle" trip. That said, these routes have an above-average percentage of riders saying thatthey drive on for 100 percent of their trips – 54 and 48 percent, respectively. This most likely reflects the nature of these trips (primarily non-commute trips) as well as the lower frequency of trips riders take on these routes.

Table 46: Most Common Boarding Mode(s) for All Trips by Route

	All Riders (n=13,130)	SEA/ BAIN (n=4,600)	SEA/ BRE (n=1,567)	EDM/ KIN (n=2,413)	MUK/ CLI (n=1,789)	FAU/ VAS (n=503)	FAU/ SOU (n=547)	PTD/ TAH (n=147)	KEY/ PTT (n=432)	ANA/ SAN (n=923)
100% Drive On	41%	27%	28%	**52%**	**56%**	41%	49%	47%	**54%**	**48%**
Primarily Drive On	14%	15%	8%	12%	17%	**26%**	13%	12%	12%	8%
Walk and Drive Equally	5%	6%	6%	6%	4%	2%	6%	1%	5%	5%
Primarily Walk On	17%	**29%**	**22%**	9%	10%	17%	15%	27%	6%	4%
100% Walk On	11%	13%	**29%**	9%	4%	7%	8%	1%	6%	8%
Other	11%	10%	8%	11%	9%	7%	9%	11%	**18%**	**26%**

Computed variable based on the number of trips respondents report taking by each mode divided by the total number of trips they report taking each month.

Other Significant Results: Most Common Boarding Mode(s) by Trip Purpose

For this analysis, the calculation is based on the percentage of trips taken by each mode for the sampled trip only.

Looking at the extent to which people walk versus drive on for their sampled (primary) trip only clearly demonstrates that commuters attempt to walk onto the ferry whenever possible.

- Thirty-four percent (34%) of commuters walk onto the ferry 100 percent of the time for those trips; an additional 19 percent walks on for the majority of the time.
- Looking at those routes identified earlier as having an above-average percentage of those walking on for their commute trips, 57 percent of Seattle / Bremerton and 44 percent of Seattle / Bainbridge commuters walk onto the ferry for 100 percent of these trips.

On the other hand, those that said their primary (sampled) trip was a non-commute trip are more likely to say that they drive on 100 percent of the time for that trip purpose.

Table 47: Most Common Boarding Mode(s) for Sampled Trip by Purpose of Sampled Trip

	All Riders (n=13,130)	Commute (n = 4,905)	Personal/ Shopping (n = 2,110)	Recreation (n = 3,040)	Social (n= 1,743)	Other (n= 1,113)
100% Drive On	47%	28%	**60%**	**46%**	**54%**	**64%**
Primarily Drive On	7%	8%	9%	5%	8%	9%
Walk and Drive Equally	7%	9%	6%	6%	8%	5%
Primarily Walk On	8%	**19%**	4%	2%	4%	4%
100% Walk On	19%	**34%**	11%	14%	14%	8%
Other	11%	2%	10%	**26%**	11%	10%

Computed variable based on the number of trips respondents report taking by each mode on their sampled trip divided by the total number of sampled trips they report taking each month.

Other Significant Results: Most Common Boarding Mode(s) by Frequency of Riding

The majority (51%) of those taking fewer than 7one-way trips per month drives on to the ferry 100 percent of the time.

It is clear that there is a point within the segment that takes 7 to 24 trips per month where riders shift from driving on all of the time to driving on most of the time. While most (45%) say that they drive on 100 percent of the time, 22 percent drives on most of the time.

- The point, in terms of number of trips, where riders shift from driving on 100 percent of the time to driving on most of the time is between 11 and 12 one-way trips per month. Note that those that drive on 100 percent of the time average 15 one-way rides per month while those that drive on the majority of the time average 19 one-way trips per month.

Similarly, there appears to be break point that causes riders taking 25 to 44 trips per month to drive on for most of the time instead of walking on most of the time compared to those taking fewer trips.

- The point, in terms of number of trips, where riders who take 20 to 44 monthly trips shit from driving on 100 percent of the time to driving on most of the time is quite high – between 36 and 37 one-way trips per month.

While the majority (57%) of those who take 45 or more one-way trips per month walk onto the ferry, an above average percentage (39%) drive on for all or most of most of their trips. This would suggest that these are the riders who have no other option.

Table 48: Primary Boarding Mode(s) by Frequency of Travel

	All Riders (n=13,130)	< 7 Trips / Month (n=4,733)	7 – 24 Trips/Mo (n=3,121)	25 – 44 Trips/Mo (n=2,673)	45 Plus Trips/Mo (n=1,480)
100% Drive On	41%	**51%**	**45%**	27%	17%
Primarily Drive On	14%	7%	**22%**	16%	22%
Walk / Drive Equally	5%	6%	4%	4%	2%
Primarily Walk On	17%	3%	16%	**35%**	**47%**
100% Walk On	11%	11%	9%	16%	10%
Other	11%	22%	3%	2%	2%

Computed variable based on the number of trips respondents report taking by each mode divided by the total number of trips they report taking each month.

Key Findings – Recreational Travel

Summary – Recreational Travel

Recreational Travel – Winter and Summer Differences

In both the winter and summer survey waves, a question was included to determine the primary purpose of the trip riders were taking on the day they were surveyed. For the purposes of this study, recreational travel is defined based on respondents' stated primary trip purpose as including recreation or tourism and travel to or from a special event. The following analysis outlines key differences in recreational travel between winter and summer.

Fourteen percent (14%) of all winter riders are taking recreational trips – defined as recreation / tourism trips or trips to / from special events. The percentage of summer riders traveling for recreation is 33 percent.

- While the increase in the percentage taking recreation in the summer is expected, it is perhaps surprising the extent to which the increase in recreation trips makes up the total increase in summer ridership. The total number of recreational trips in the summer (184,376) is 221 percent higher than in the winter. Overall ridership on WSF increases by 37 percent. Therefore, recreational trips contribute to nearly all (83%) of that increase.

As would be expected, the Anacortes routes have the highest percentages of riders traveling for recreation.

- One out of three (34%) winter riders on the Anacortes / San Juans route are recreational travelers. The percentage (63%) of summer recreational riders are nearly double that in the winter. Between Anacortes and the San Juans, in a typical week, there is a 109 percent overall increase in traffic between winter and summer, with 90 percentage points of that increase resulting from the growth in recreational ridership.
- Nearly all (84%) riders on the Anacortes / Sidney summer ferry are recreational travelers.

The Port Townsend / Keystone route also carries a significant percentage of recreational riders – 22 percent in the winter and 57 percent in the summer.

- Between Keystone and Port Townsend, during a typical week, there is a 59 percent overall increase in traffic between winter and summer, with 114 percentage points of that increase resulting from the growth in recreational travel. Note that there is a decrease in other types of travel on this route and that decrease is made up and then some by additional recreation trips.

The majority (69%) of all winter and summer recreational travelers drive onto the ferry as a driver or a passenger in a vehicle.

- Most recreational travelers driving onto the ferry have a driver and one or more passengers – average vehicle occupancy is 2.5 pp / vehicle.

Summer Recreational Travel

The summer survey contained five questions specific to recreational travel that provides further insights into the characteristics of summer recreational travel.

More than two out of five (44%) summer riders' trips (includes drivers, vehicle passengers, and walk-on riders) are day trips. Three out of five (61%) summer recreational walk-on riders are taking a day trip.

- The Seattle / Bainbridge, Seattle / Bremerton, and Fauntleroy / Vashon routes are popular with those taking day trips.

Half (50%) of all summer recreation trips are relatively spontaneous – that is, the decision to use the ferry is made the day of the trip or one to three days prior.

- This is notable among those taking day trips – nearly two thirds (65%) of those taking a day trip using the ferry decide to do so three or fewer days in advance.

Nearly all (88%) summer recreational trips entail a round trip.

For most summer recreational riders, the decision to use the ferry is dominated by the amount of time needed to take the trip and/or that there is no reasonable alternative. Seventy-seven percent (77%) of all summer recreational riders mention one or both of these as the reason for using the ferry.

Detailed Findings – Recreational Travel Winter and Summer Differences

The extent and nature of recreational travel is of particular interest and required by the Ferry Customer Survey legislative mandate. In both the winter and summer survey waves, a question was included to determine riders' primary trip purpose. For the purposes of this study, recreational travel is defined based on respondents' stated primary trip purpose as including recreation or tourism and travel to or from a special event.

Extent of Recreational Travel

All Riders: Extent of Recreational Travel

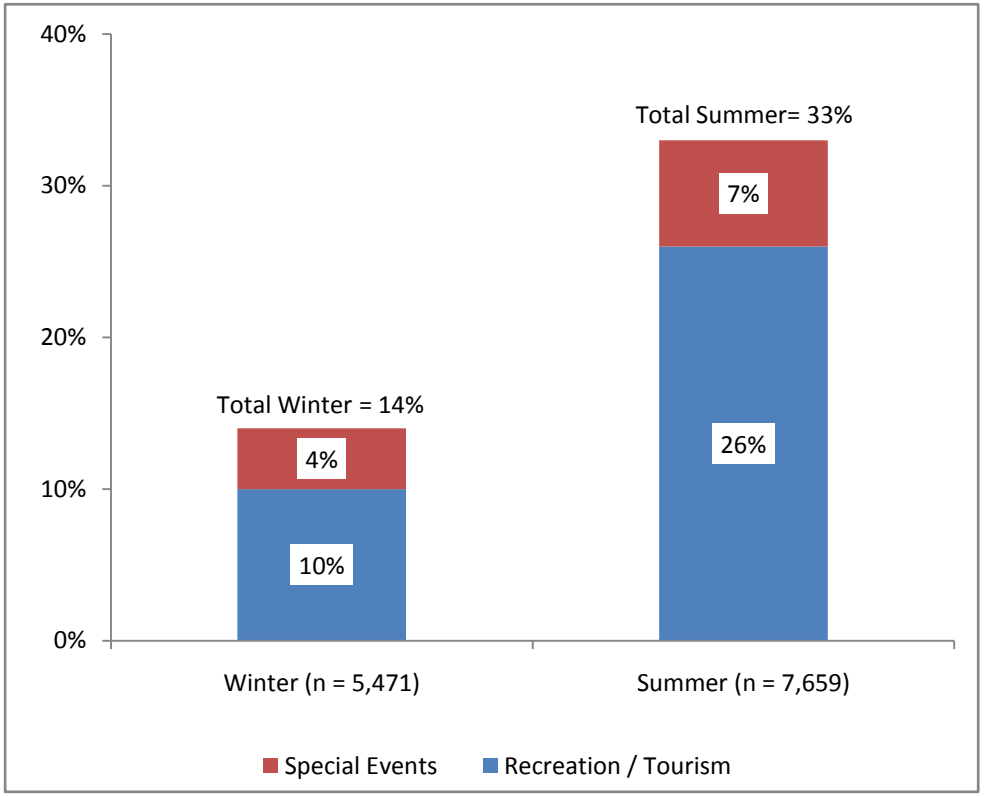
Fourteen percent (14%) of all winter travel is recreational.

- Nearly three-fourths (74%) of these trips are recreation / tourism trips. The balance (26%) is travel to / from special events.
- This is equal to 42,544 weekly trips for recreation / tourism and 14,965 weekly trips to special events for a total of 57,519 weekly trips.

Recreational travel increases significantly during the summer months. While this is not surprising, what may be surprising is the extent of the increase in the total number of trips on the system resulting from recreational travel.

- One out of three (33%) summer trips are recreational in nature. Of these, 79 percent is recreation / tourism trips and 21 percent is travel to / from special events.
- This translates to 146,254 trips per week for recreation / tourism and 38,122 trips to get to / from special events.
- The total number of recreational trips in the summer (184,376) is 221 percent higher than in the winter. Overall ridership on WSF increases by 37 percent. Therefore, recreational trips contribute to nearly all (83%) of that increase.

Figure 20: Extent of Recreational Travel



Question: What is the primary purpose of this specific trip - that is the trip you are taking today?

Demographic Characteristics of Recreational Riders

Recreational riders are different demographically from non-recreational riders as highlighted below.

- Recreational travelers are more likely to be women (57%) than men (43%). The overall distribution for non-recreational riders is evenly divided between men and women.
- A somewhat higher than average percentage of recreational riders is 65 and older (17%). Consistent with that, a higher than average percentage is retired (22%).
- In addition, recreational riders are less likely to be employed full-time; however, nearly one out of five (18%) are employed part-time or are students.
- Finally, recreational travelers are more affluent than non-recreational riders.

There are no differences between winter and summer recreational travelers.

Table 49: Demographic Characteristics of Recreational Riders

	Non-Recreational Riders (n = 9,871)	Recreational Riders		
		Winter & Summer (n = 3,040)	Winter (n = 656)	Summer (n = 2,384)
Gender				
Male	**50%**	43%	42%	43%
Female	50%	**57%**	58%	57%
Age				
16 – 17	1%	1%	2%	1%
18 – 24	6%	6%	5%	6%
25 – 34	11%	12%	13%	12%
35 – 44	17%	17%	17%	16%
45 – 54	26%	24%	24%	24%
55 – 64	26%	24%	23%	24%
65 +	13%	**17%**	16%	17%
Median	51.0	51.0	50.3	51.2
Employment				
Full-Time	**64%**	52%	50%	52%
Emp. PT /Student	1%	18%	22%	17%
Self-Employed	14%	1%	1%	<1%
Retired	14%	**22%**	20%	22%
Other	6%	8%	7%	9%
Income				
< $15,000	4%	4%	3%	4%
$15K - $35K	9%	9%	9%	9%
$35K - $50K	12%	11%	12%	10%
$50K - $75K	22%	19%	18%	20%
$75K - $100K	19%	17%	20%	16%
$100K - $150K	21%	19%	20%	19%
$150K Plus	14%	**21%**	17%	22%
Median	$79,805	$85,580	$83,746	$86,173

Route Level Analysis: Extent of Recreational Travel

As would be expected, the Anacortes routes have the highest percentages of riders traveling for recreation.

- One-third (34%) of all winter riders on the Anacortes / San Juans routes are traveling for recreation. This increases to 63 percent of all riders in the summer.
  - Between Anacortes and the San Juans, during a typical week, there is a 109 percent overall increase in traffic between winter and summer, with 90 percentage points of that increase resulting from the growth in recreational ridership.
- More than four out of five (84%) trips on the Anacortes / Sidney route are recreation trips.

And as expected, a higher than average percentage of Keystone / Port Townsend riders are traveling for recreation.

- Twenty-two percent (22%) of winter riders are recreational travelers. This increases to 57 percent in the summer.
  - Between Keystone and Port Townsend, during a typical week, there is a 59 percent overall increase in traffic between winter and summer, with 114 percentage points of that increase resulting from the growth in recreational travel. Note that there is a decrease in other types of travel on this route and that decrease is made up and then some by additional recreation trips.

Table 50: Extent of Recreational Travel by Route

	Winter										
	All Riders (n=**5,471**)	SEA/ BAIN (n=**2060**)	SEA/ BRE (n=**758**)	EDM/ KIN (n=**996**)	MUK/ CLI (n=**646**)	FAU/ VAS (n=**251**)	FAU/ SOU (n=**268**)	PTD/ TAH (n=**93**)	KEY/ PTT (n=**128**)	ANA/ SAN (n=**271**)	ANA/ SID (n.a.)
% of All Trips that are Recreation Trips	14%	16%	12%	13%	10%	10%	8%	11%	**22%**	**34%**	n.a.
# of Weekly Trips	57,519	18,018	5,395	9,976	7,113	3,670	1,219	1,231	2,094	8,804	n.a.
	Summer										
	All Riders (n=**7,659**)	SEA/ BAIN (n=**2,540**)	SEA/ BRE (n=809)	EDM/ KIN (n=**1,417**)	MUK/ CLI (n=**1,143**)	FAU/ VAS (n=252)	FAU/ SOU (n=279)	PTD/ TAH (n=54)	KEY/ PTT (n=304)	ANA/ SAN (n=652)	ANA/ SID (n=209)
% of All Trips that are Recreation Trips	33%	30%	21%	32%	29%	26%	20%	19%	**57%**	**63%**	**84%**
# of Weekly Trips	184,376	44,319	13,156	31,070	26,539	11,677	4,441	2,727	8,612	34,123	7,711
% Change (Summer / Winter)	221%	146%	144%	211%	273%	218%	264%	122%	311%	288%	n.a.

Boarding Mode for Recreation Trips

More than two-thirds (69%) of recreational travelers drive onto the ferry as a driver or a passenger in a vehicle.

- Reflecting the mix of vehicle drivers and passengers, average vehicle occupancy among those traveling for recreation is higher than for those traveling for non-recreation purposes – 2.5 pp / vehicle compared to 1.6 pp / vehicle, respectively.

As would be expected given the nature of the trip, recreational riders are less likely than non-recreational travelers to walk onto the ferry – 31 percent compared with 38 percent, respectively. This most likely reflects the need for luggage and other gear / supplies, the potentially extended nature of the trip, and the perceived or real need for a car at the destination to get around.

Significantly more winter recreational riders are vehicle drivers (43%).

In the summer period the distribution between vehicle drivers and passengers is more even – 32 percent and 36 percent, respectively.

Table 51: Boarding Mode for Recreation Trips

	Non-Recreational Riders (n = 9,871)	Recreational Riders		
		All (n = 3,040)	Winter (n = 656)	Summer (n = 2,384)
Vehicle Driver	**44%**	35%	**43%**	32%
Vehicle Passenger	18%	34%	29%	**36%**
Walk-On Passenger	38%	31%	28%	32%
Average Vehicle Occupancy	1.6	2.5	2.3	2.5

Time of Day / Week Travel for Recreation Trips

The majority (81%) of recreational travelers travel outside out peak weekday travel periods. Half (49%) of those traveling for recreation are traveling on the weekends; 32 percent travel during off-peak weekdays.

- There are no differences in time of day / day of week between winter and summer recreational travelers.

Table 52: Time of Day / Week Travel for Recreation Trips

	Non-Recreational Riders (n = 9,871)	Recreational Riders		
		All (n = 3,040)	Winter (n = 656)	Summer (n = 2,384)
	All Riders			
Peak Weekday	**38%**	19%	17%	19%
Off-Peak Weekday	**37%**	32%	33%	32%
Weekend	24%	**49%**	50%	49%
	Vehicle Drivers			
Peak Weekday	31%	20%	19%	20%
Off-Peak Weekday	45%	32%	33%	32%
Weekend	24%	**48%**	49%	48%

Detailed Findings – Summer Recreational Trip Characteristics

The summer survey included five questions specific to recreational travel to provide further insight into the characteristics of summer recreational trips.

Number of Nights Away from Home

More than two out of five (44%) summer recreational riders' trips are day trips. (Note that this includes all riders [drivers, vehicle passengers, and walk-on riders].)

- This is noteworthy on the Seattle / Bremerton (75%), Fauntleroy / Vashon (71%), and Seattle / Bainbridge (61%) routes.
- Three out of five (61%) summer recreational walk-on riders are taking a day trip.

On the other hand, summer recreation travelers on the Anacortes routes are traveling for longer trips.

- Three out of five (59%) Anacortes / San Juan summer recreational travelers are away from home two to three nights. The trips sampled for this route were primarily weekend trips and this may be reflected in this data.
- More than four out of five (86%) Anacortes / Sidney recreational travelers are staying away from home two or more nights. The number of nights away is more varied than for the Anacortes / San Juans riders. Both one-way trips sampled for this route also encompassed a weekend.

Table 53: Number of Nights Away from Home by Route

	All Summer Recreational Riders										
	All Riders (n=2,384)	SEA/ BAIN (n=661)	SEA/ BRE (n=126)	EDM/ KIN (n=381)	MUK/ CLI (n=325)	FAU/ VAS (n=61)	FAU/ SOU (n=33)	PTD/ TAH (n=10)	KEY/ PTT (n=177)	ANA/ SAN (n=429)	ANA/ SID (n=181)
Same Day Trip	44%	**61%**	**75%**	39%	48%	**71%**	62%	100%	27%	12%	5%
Overnight	9%	7%	7%	14%	13%	2%	12%	0%	9%	7%	8%
2 to 3 Nights	28%	13%	9%	29%	27%	11%	23%	0%	27%	**59%**	**28%**
4 to 7 Nights	11%	10%	6%	13%	7%	7%	0%	0%	20%	13%	**27%**
8 or More Nights	8%	8%	2%	5%	4%	9%	3%	0%	17%	9%	**31%**

Question: How many nights will you be (or were you) away from home on this trip?

When Decide to Take the Ferry

Half (50%) of all summer recreation trips are relatively spontaneous – that is, the decision to use the ferry is made the same day of travel or one to three days prior.

- To a large extent, this reflects the relatively higher percentage of summer recreation riders taking a day trip (44%). Nearly two thirds (65%) of those taking a day trip using the ferry decide to do so three or fewer days in advance.
- Similarly those routes that are more likely to have a high percentage of recreation riders taking day trips also have a higher than average percentage of those who make a more spontaneous trip.

On the other hand, there is clearly more pre-planning for those traveling on the Anacortes routes. These trips are also more likely to be extended trips.

Table 54: When Decide to Take the Ferry by Route

	All Summer Recreational Riders										
	All Riders (n=2,384)	SEA/ BAIN (n=661)	SEA/ BRE (n=126)	EDM/ KIN (n=381)	MUK/ CLI (n=325)	FAU/ VAS (n=61)	FAU/ SOU (n=33)	PTD/ TAH (n=10)	KEY/ PTT (n=177)	ANA/ SAN (n=429)	ANA/ SID (n=181)
Same Day	26%	**34%**	29%	27%	41%	44%	20%	29%	12%	9%	8%
1 to 3 Days Prior	24%	29%	34%	26%	23%	24%	22%	14%	26%	18%	14%
4 to 6 Days Prior	10%	7%	11%	12%	10%	4%	14%	14%	20%	10%	7%
1 to 3 Weeks Prior	14%	13%	9%	15%	10%	13%	27%	0%	15%	17%	**23%**
1 to 3 Months Prior	14%	9%	10%	9%	7%	8%	9%	14%	19%	**25%**	**36%**
More than 3 Months	12%	8%	8%	12%	9%	7%	8%	29%	9%	**21%**	13%

Question: When did you decide to select the ferry for today's trip?

Round Trip

Most (88%) summer recreational travelers report that their trip entails a round trip.

- Somewhat fewer (73%) Keystone / Port Townsend summer recreational travelers report that their trip entails a round trip.

Table 55: Round Trip by Route

	All Summer Recreational Riders										
	All Riders (n=2,384)	SEA/ BAIN (n=661)	SEA/ BRE (n=126)	EDM/ KIN (n=381)	MUK/ CLI (n=325)	FAU/ VAS (n=61)	FAU/ SOU (n=33)	PTD/ TAH (n=10)	KEY/ PTT (n=177)	ANA/ SAN (n=429)	ANA/ SID (n=181)
% Making Round Trip on Ferry	88%	89%	91%	88%	83%	92%	73%	100%	73%	92%	84%

Question: Is this trip part of a round trip on the ferries?

Nature of Trip

The nature of summer recreation trips on WSF is highly varied.

- Nearly half (46%) summer recreational travelers' trips on the ferries are day trips. Note that this percentage (46%) is slightly larger than the percentage of recreation riders who indicated that they were not spending the night away from home (44%). This would suggest that some respondents use the ferries as part of some other trip away from home – for example, someone on an extended stay on Whidbey Island might choose to take the ferry to Port Townsend.

Table 56: Nature of Sampled Recreation Trip by Route

	All Summer Recreational Riders										
	All Riders (n=2,384)	SEA/ BAIN (n=661)	SEA/ BRE (n=126)	EDM/ KIN (n=381)	MUK/ CLI (n=325)	FAU/ VAS (n=61)	FAU/ SOU (n=33)	PTD/ TAH (n=10)	KEY/ PTT (n=177)	ANA/ SAN (n=429)	ANA/ SID (n=181)
Day Trip	46%	66%	77%	38%	53%	70%	54%	86%	37%	16%	4%
Weekend Getaway	18%	9%	7%	17%	19%	6%	13%	0%	16%	**39%**	**30%**
Visit Friends / Family	12%	10%	7%	16%	12%	5%	1%	29%	13%	13%	12%
Vacation Home	11%	6%	8%	11%	14%	13%	33%	0%	1%	16%	5%
Camping / Backpacking	9%	3%	0%	16%	8%	7%	0%	0%	12%	16%	11%
Part of Washington State Trip	8%	7%	4%	12%	5%	6%	4%	0%	19%	7%	11%
Part of Multi-State Trip	4%	4%	1%	3%	2%	2%	3%	0%	14%	2%	**26%**
Other	3%	2%	2%	2%	1%	4%	0%	0%	1%	3%	17%

Question: Which of the following best describes this trip?
Columns sum to more than 100 percent; multiple responses allowed

Reasons for Using the Ferry

For most summer recreational riders, the decision to use the ferry is dominated by the amount of time needed to take the trip and/or that there is no reasonable alternative. Seventy-seven percent (77%) of all summer recreational riders mention one or both of these as the reason for using the ferry.

- Clearly those traveling to the San Juans and Vashon are more likely than other summer recreational travelers to say that the primary reason for using the ferry is because they have no alternative.
- While there are alternatives, those on the Seattle / Bainbridge, Edmonds / Kingston, Mukilteo / Clinton, and Keystone / Port Townsend feel that the potential cost of riding the ferry for these trips is outweighed by the amount of time the ferry trip takes compared to the alternative.

An above-average percentage of those on the Seattle / Bainbridge and Seattle / Bremerton routes mention the uniqueness of the experience. These routes also have a higher than average percentage of recreational riders taking a day trip.

Seattle / Bremerton riders give the most varied reasons for riding the ferry.

- It is particularly notable that while having an alternative, recreational riders on this route are more likely to say they chose the ferry over the alternative because it is relaxing (34%), they would rather not drive (41%), and/or the price (23%).

Table 57: Reasons for Using the Ferry for Sampled Recreation Trip by Route

	All Summer Recreational Riders										
	All Riders (n=2,384)	SEA/ BAIN (n=661)	SEA/ BRE (n=126)	EDM/ KIN (n=381)	MUK/ CLI (n=325)	FAU/ VAS (n=61)	FAU/ SOU (n=33)	PTD/ TAH (n=10)	KEY/ PTT (n=177)	ANA/ SAN (n=429)	ANA/ SID (n=181)
Fastest way	47%	**56%**	31%	**69%**	**68%**	21%	32%	0%	**63%**	18%	37%
No reasonable alternative	46%	34%	7%	40%	36%	**82%**	23%	100%	39%	**74%**	56%
Uniqueness of experience	22%	**27%**	**31%**	19%	23%	12%	26%	17%	24%	19%	18%
Relaxing way to travel	20%	26%	**34%**	20%	13%	6%	55%	17%	14%	15%	18%
Rather not drive	15%	19%	**41%**	16%	15%	8%	22%	0%	13%	3%	18%
Price	14%	10%	**23%**	9%	10%	2%	15%	0%	15%	22%	27%
Other	4%	2%	6%	1%	4%	12%	5%	17%	3%	7%	4%

Question: Which of the following reasons best describes why you chose Washington State Ferries rather than some other way to make this trip?
Columns sum to more than 100 percent; multiple responses allowed

Appendix

On-Board Survey Background / Objectives & Methodology

Background / Objectives

While Washington State Ferries (WSF) has routinely conducted Origin & Destination Surveys (1993, 1999, and 2006) as well as a Customer Survey on Amenities and Customer Satisfaction (2002), this research represents the first comprehensive survey of WSF customers – both their travel behaviors and attitudes. The key objectives for this on-board survey effort were in large part driven by the legislation that required this research and were further refined as follows:

- Develop and implement a quantitative research methodology that yields reliable and statistically valid baseline results. The legislation calls for an ongoing biennial survey effort. As such, the research needed to be designed with the following sub-objectives in mind:
  - The methodology must be replicable in future years.
  - The methodology must provide reliable data at an aggregate level and allow for reliable analysis among key customer segments, notably at the route level and by different types of passengers (boarding mode, trip purpose, frequency of travel, etc.).
- Provide a comprehensive demographic and travel behavior profile of WSF customers.
- Test customer attitudes toward possible changes in fare policies and/or operations.

Methodology

Sampling

The overall objective in designing the sample plan was to obtain a representative sample of all ferry customers on all routes operated by WSF. The most effective and efficient means to accomplish this objective is through the use of a cluster sample. Cluster sampling is a technique used when "natural" groupings are evident in a statistical population – in this case a ferry trip. In this technique, the total population (all ferry customers), is divided into these groups (or clusters) and a sample of the trips is selected randomly. The survey is then administered to all riders on each selected trip.

The sample was stratified by route and the number of trips selected for each route was set to achieve a final number of surveys that is roughly proportionate to ridership on that route. The sample was further stratified by time of day. Since the focus of the study is on peak travel behavior and because the majority of ferry customers travels during peak travel periods, stratification will result in a roughly proportionate sample of peak and off-peak travelers (relative to their actual percent of the population). Sampling is at a rate of 75 percent peak / 25 percent off-peak trips, as illustrated in the following table.

Table 58: Number of Sampled Trips

Route	Total Number of Yoked Trips Sampled	# of Peak Weekday	# of Peak Weekend	# of Off-Peak (Weekday & Weekend)
		March 2008		
Seattle / Bainbridge	18	10	3	5
Seattle / Bremerton	6	4	1	1
Edmonds / Kingston	16	10	3	3
Mukilteo / Clinton	15	9	3	3
Fauntleroy / Vashon / Southworth	13	8	1	4
Point Defiance / Tahlequah	4	2	1	1
Keystone / Port Townsend	3	2	1	0
Anacortes / San Juans	2	1	1	0
Total	77	46	14	17
		July / August 2008		
Seattle / Bainbridge	18	10	3	5
Seattle / Bremerton	6	4	1	1
Edmonds / Kingston	16	10	3	3
Mukilteo / Clinton	15	9	3	3
Fauntleroy / Vashon / Southworth	13	8	1	4
Point Defiance / Tahlequah	4	2	1	1
Keystone / Port Townsend	4	2	2	0
Anacortes / San Juans	4	2	2	0
Anacortes / Sidney	1		1	
Total	81	47	17	17

Definitions for peak and off-peak travel times were provided by Washington State Ferries as follows:

1. **Morning Peak**: Eastbound trips that depart from the west side terminal between 5:30 and 9:00 a.m. Exception being Keystone / Port Townsend which are westbound trips departing from Keystone between 5:30 and 9:00 a.m.
2. **Afternoon Peak**: Westbound trips that depart from the east side terminal between 3:00 and 7:00 p.m. Again Keystone / Port Townsend are eastbound trips (departing from Port Townsend) during these times.
3. **Weekend Peak**: Westbound trips originating between 8:00 a.m. and Noon on Saturdays and eastbound trips originating between Noon and 8:00 p.m. on Sundays.
4. **Off-Peak**: All other weekday trips between 9:05 a.m. and 3:00 p.m. and from 7:05 p.m. to the last sailing.

Sampled trips were “yoked” or paired with a return trip departing approximately 30 to 60 minutes after the sampled trip was completed. This allowed the survey personnel to return to their origin. With this pairing, surveys were scheduled to be distributed on 316 one-way trips. In actuality, surveys were distributed on 325 trips. The table below provides the breakdown of the final sampled trips.

Table 59: Total Number of One-Way Trips Surveyed

Route	Winter 2008		Summer 2008	
	# of One-Way Trips (Planned)	# of One-Way Trips Actual	# of One-Way Trips (Planned)	# of One-Way Trips Actual
Seattle / Bainbridge	36	35	36	36
Seattle / Bremerton	12	10	12	10
Edmonds / Kingston	32	37	32	45
Mukilteo / Clinton	30	36	30	30
Fauntleroy / Vashon / Southworth	26	26	26	34
Point Defiance / Tahlequah	8	10	8	8
Keystone / Port Townsend	6	6	8	8
Anacortes / San Juans	4	4	8	8
Anacortes / Sidney	No winter service		2	2
Total	154	164	162	181

Data Collection and Interviewing Outcomes

Data collection occurred over a four week period during each survey wave. Each route or route group was surveyed over the course of a one-way week period. Trained survey personnel, accompanied by a supervisor, distributed surveys in advance of and during the scheduled trip. This ensured distribution only to passengers on the sampled trip. Survey personnel continued to distribute and pick-up surveys on both the passenger and vehicle decks throughout the trip. In addition, respondents were given the option to return the survey by mail (postage pre-paid) or on-line. In total more than 63,000 passengers were approached and more than 13,000 surveys returned. Returns by route are shown in the table below.

Table 60: Number of Completed Surveys – Overall and by Route

Route	Total	Winter 2008	Summer 2008
Seattle / Bainbridge	4,600	2,060	2,540
Seattle / Bremerton	1,567	758	809
Edmonds / Kingston	2,413	996	1,417
Mukilteo / Clinton	1,789	646	1,143
Fauntleroy / Vashon	503	251	252
Fauntleroy / Southworth	547	268	279
Point Defiance / Tahlequah	147	93	54
Keystone / Port Townsend	432	128	304
Anacortes / San Juans	923	271	652
Anacortes / Sidney	209	No winter service	209
Total	13,130	5,471	7,659

Questionnaire

The questionnaire was developed with input from members of the WSTC, WSF planning staff, the Ferry Advisory Executive Council, and a volunteer consultant advising WSTC on the survey process. The questionnaire also included a request for passengers to complete the additional pricing and strategy research. This research is conducted on-line. Just over 4,000 or 37 percent of those completing the on-board survey agreed to participate in this additional research and provided contact information.

Weighting

The data was weighted based on the sampling to ensure that the results of the survey represented the actual number of boardings during the sampled travel periods within each route. Data is weighted by boarding mode for the sampled trip and time boarded within route. Ridership data for weighting was provided by WSF for each survey way to correspond to the exact week during which a specific route was surveyed. The number of passengers surveyed on each route by key strata and the final weighted cell sizes are shown in the table below.

Table 61: Sample Sizes – Weighted and Unweighted

Route	Final Sample Size	% of Sample	Weighted Sample Size	% of Sample	Expanded Sample Size	% of Weekly Trips
			Winter 2008			
Seattle / Bainbridge	2,060	38%	1,511	28%	113,582	28%
Seattle / Bremerton	758	14%	612	11%	46,043	11%
Edmonds / Kingston	996	18%	1,046	19%	78,663	19%
Mukilteo / Clinton	646	12%	973	18%	73,128	18%
Fauntleroy / Vashon	251	5%	495	9%	37,232	9%
Fauntleroy / Southworth	268	5%	207	4%	15,582	4%
Point Defiance / Tahlequah	93	2%	152	3%	11,448	3%
Keystone / Port Townsend	128	2%	129	2%	9,664	2%
Anacortes / San Juans	271	5%	346	6%	26,036	6%
Total	5,471		5,471		411,377	
			Summer 2008			
Seattle / Bainbridge	2,540	33%	2,029	26%	149,428	26%
Seattle / Bremerton	809	11%	859	11%	63,244	11%
Edmonds / Kingston	1,417	19%	1,335	17%	98,335	17%
Mukilteo / Clinton	1,143	15%	1,247	16%	91,838	16%
Fauntleroy / Vashon	252	3%	617	8%	45,439	8%
Fauntleroy / Southworth	279	4%	301	4%	22,148	4%
Point Defiance / Tahlequah	54	1%	200	3%	14,726	3%
Keystone / Port Townsend	304	4%	209	3%	15,383	3%
Anacortes / San Juans	652	9%	737	10%	54,294	10%
Anacortes / Sidney	209	3%	126	2%	9,265	2%
Total	7,659		7,659		564,099	

Relevant Questionnaire Sections

Following are the primary question used in the analysis of the data in this Technical Paper. Complete questionnaires are available from the WSTC and are contained with the Technical Methodology report provided under separate cover.Some questions were asked in both survey waves, while others were asked winter or summer only. A color code system has been established as follows.

COLOR CODES:

Q# Winter and Summer Question Q# Winter Question Q# Summer Question

Demographics (Both Waves)

Q) Are you . . .

☐ 1 Male
☐ 2 Female
☐ 3 Prefer not to answer

Q) Which of the following categories includes your **Age**?

☐ 1 16 to 17
☐ 2 18 to 24
☐ 3 25 to 34
☐ 4 35 to 44
☐ 5 45 to 54
☐ 6 55 to 64
☐ 7 65 and over
☐ 8 Prefer not to answer

Q) Are **You** . . .? *(Check one)*

☐ 1 Employed Full-time
☐ 2 Employed Part-time
☐ 3 Student and Employed
☐ 4 Student / Not Employed
☐ 5 Military Personnel
☐ 6 Retired
☐ 7 Homemaker
☐ 8 Not currently employed
☐ 9 Other: describe_____
☐ 10 Prefer not to answer

Q) What Is your annual **Household Income** before taxes?

☐ 1 Less than $15,000
☐ 2 $15,000 to $24,999
☐ 3 $25,000 to $34,999
☐ 4 $35,000 to $49,999
☐ 5 $50,000 to $74,999
☐ 6 $75,000 to $99,999
☐ 7 $100,000 to $149,999
☐ 8 $150,000 or more
☐ 9 Prefer not to answer

Q) What is your **Home** zip code? | | | | | |

Length of Time Riding and Proximity to Ferry Near Home (March On-Boards Only)

Q) How many **Years** have you been **Riding the Ferries**?

- ☐ 1 First time I have ridden
- ☐ 2 Less than 1 year
- ☐ 3 1 to 2 years
- ☐ 4 3 to 5 years
- ☐ 5 6 to 10 years
- ☐ 6 More than 10 years

Q) About **How Far In Miles Is The Ferry Terminal** you typically use **From Your Home**?
Write in distance in miles: _____

Travel Behavior

Q) For your current trip ***TODAY***, where did you **Get On / Board** this ferry and where will you **Get Off / Depart** this ferry today?

I *GOT ON / BOARDED* Ferry *(Check One)*		**I WILL *GET OFF / DEPART* Ferry *(Check One)***	
☐ 1	Anacortes	☐ 2	Anacortes
☐ 2	Bainbridge Island	☐ 2	Bainbridge Island
☐ 3	Bremerton	☐ 3	Bremerton
☐ 3	Clinton	☐ 3	Clinton
☐ 3	Fauntleroy	☐ 3	Fauntleroy
	Friday Harbor		Friday Harbor
☐ 5	Edmonds	☐ 5	Edmonds
☐ 3	Keystone	☐ 3	Keystone
☐ 9	Kingston	☐ 9	Kingston
	Lopez Island		Lopez Island
☐ 3	Mukilteo	☐ 3	Mukilteo
	Orcas Island		Orcas Island
☐ 3	Point Defiance	☐ 3	Point Defiance
☐ 3	Port Townsend	☐ 3	Port Townsend
☐ 15	Seattle	☐ 15	Seattle
☐ 3	Southworth	☐ 3	Southworth
☐ 3	Tahlequah	☐ 3	Tahlequah
☐ 3	Vashon	☐ 3	Vashon

Q6A) What is / was the **Scheduled Departure Time** for this ferry?

(*Write in time and check a.m. or p.m.)* _____:_____ ☐ 1 a.m. ☐ 2 p.m.

Q6B) What **Time** did you **Arrive** at the ferry terminal to catch this ferry?

(*Write in time and check a.m. or p.m.)* _____:_____ ☐ 1 a.m. ☐ 2 p.m.

Q6C) What **Time** do / did you **Need to be at Your Final Destination** for this trip?

(*Write in time and check a.m. or p.m.)* _____:_____ ☐ 1 a.m. ☐ 2 p.m.

☐ 9 There was no specific time that I needed to be at my destination

Q7) For the trip you are taking today, approximately **How Much Total Time** will this trip take from the place you left to **Start** this trip to when you **Arrive at Your Final Destination**?

Write in Total Number of: _____Hours _____ Minutes

Q8) Could you have **Taken An Earlier** or **Later Boat** for this trip? *(Check all that apply)*

☐ 1 No – I had **No Other Choice** than to take this **Specific** boat

☐ 2 Yes – I could have taken an **Earlier** boat for **Today's Trip**?

What **Departure Time** would have been **The Earliest** boat you would have been willing to catch?

(Write in time and check a.m. or p.m.) _____:_____ ☐ 1 a.m. ☐ 2 p.m.

☐ 3 Yes – I could have taken a **Later** boat

What **Departure Time** would have been **The Latest** boat you would have been willing to catch?

(Write in time and check a.m. or p.m.) _____:_____ ☐ 1 a.m. ☐ 2 p.m.

Q9) For your current trip ***TODAY***, did you **WALK** or **DRIVE / RIDE A VEHICLE** onto the ferry?

(Check one and then answer corresponding sections)

☐ 1 Walked onto the Ferry (Continue to **WALK-ON PASSENGERS ONLY** section)

☐ 2 Drove a Vehicle or Rode as a Passenger in a Vehicle onto the Ferry (Continue to **DRIVERS AND VEHICLE PASSENGERS ONLY** section)

WALK-ON PASSENGERS ONLY Answer This Section

If you drove or rode onto the ferry as a passenger, SKIP to the next the section.

Q10A) How did you **Get To** this ferry? *(Check one)*

☐ 1	Bicycle	☐ 7	Taxi
☐ 2	Walked	☐ 8	Drove and parked a vehicle in a park-and-ride lot
☐ 3	Dropped off	☐ 9	Drove and parked a vehicle in the ferry terminal parking
☐ 4	Public Transit Bus / Shuttle	☐ 10	Drove and parked in another parking lot or on the street
☐ 5	Sounder Train	☐ 11	Something else (please describe)
☐ 6	Vanpool		_____

10B) After **Getting Off** the ferry, will you . . .? *(Check one)*

☐ 1	Bicycle to your destination	☐ 7	Taxi
☐ 2	Walk to your destination	☐ 8	Retrieve a vehicle in the ferry terminal parking
☐ 3	Get picked up	☐ 9	Retrieve a vehicle in a park-and-ride lot
☐ 4	Take a Bus / Shuttle	☐ 10	Retrieve a vehicle in another parking lot or on the street
☐ 5	Take Sounder Train	☐ 11	Something else (please describe)
☐ 6	Vanpool		_____

DRIVERS / VEHICLE PASSENGERS ONLY Answer This Section

If you walked on SKIP to the next section.

Q11A) How did you Get To this ferry today?

☐ 1 Drove on the ferry myself (**Driver**) ☐ 2 Drove on the ferry with someone else (**Passenger**)

Q11B) Including yourself, how many people were in the vehicle? Write in Number_____

Q11C) If there were 3 or more people in the vehicle, are you a **Registered Carpool**?

☐ 1 Yes ☐ 2 No

Q12A) Which of the following best **Describes The Vehicle** (including trailer if any) you drove on the ferry? *(Check one)*

☐ 1 Small Auto (e.g., Toyota Corolla, Honda Civic)

☐ 2 Mid-Sized Auto / Truck / SUV (Ford Focus, Pontiac G6, Ford Escape)

☐ 3 Standard Auto / Truck / SUV (Chevy Impala, Nissan Altima, Chevy Trailblazer)

☐ 4 Recreational Vehicle / Vehicle & Trailer / Truck 20 feet or smaller

☐ 5 Recreational Vehicle / Vehicle & Trailer / Truck 20 feet or greater

☐ 6 Motorcycle

☐ 7 Vanpool

☐ 8 Something else (please describe _____)

FERRY TRAVEL

Q13) What is the **Primary Purpose of this Specific Trip** – that is the trip you are taking today*? (Check one)*

☐ 1 Commute to / from **Work**

☐ 2 Commute to / from **School**

☐ 3 **Work Related** activity / business

☐ 4 **Personal Business** / activity

☐ 5 **Medical** appointments

☐ 6 **Everyday** shopping

☐ 7 **Major** shopping (e.g., Costco)

☐ 8 **Recreation / Tourism**

☐ 9 Travel to / from **Special Event**

☐ 10 Travel to / from to see **Family / Friends**

☐ 11 Other – please describe

_____

Q14A) Including **Only** those trips for **Today's Primary Purpose,** how many **One-Way Trips Do You Take In A Typical Month By Each Mode**? *(Please enter response in table below under Q14A – Today's Primary Purpose)*

Q14B) Besides trips for today's primary purpose (the trip you described in Q13), how many **Additional *One-Way* Trips** do you take on the ferry in a typical month **For All "Other" Purposes By Each Mode**? (*Please enter response under Q14B below Do **NOT** include those from Q14A) Base your answer on a **Trip Being A One-Way Trip** – **Count A Round Trip As Two Trips**.*

	Q14A **Today's Primary Purpose**	**Q14B** **All Other Purposes**
	Write in # of One-Way Trips / Month	***Write in # of One-Way Trips / Month***

Drive Vehicle On – As Driver	_____	_____
Ride on – As a Passenger in a Vehicle	_____	_____
Walk or **Bicycle** On	_____	_____
Motorcycle / Scooter	_____	_____
Vanpool / Registered Carpool	_____	_____
Some **Other** mode (describe _____)	_____	_____

Q15) On average, how **Often** do you ride Washington State Ferries for **Recreational Purposes**?

☐ 1 First Time Ridden ☐ 3 At least once every **3 months** ☐ 5 At least once every **year**

☐ 2 At least once a **month** ☐ 4 At least once every **6 months** ☐ 6 **Less often** than once a year

Q16A) Since you **Started Riding the Ferries**, has the **Frequency** with which you ride . . .?

Increased Significantly	**Increased Somewhat**	**No Change**	**Decreased Somewhat**	**Decreased Significantly**
☐ 5	☐ 4	☐ 3	☐ 2	☐ 1

Q16B) **If** the **Frequency** with which you ride the ferries **Has Changed**, which of the following is the primary reason for that change? *(Check all that apply)*

☐ 1 Change in **Work Or School Schedule**

☐ 2 Changed **Jobs**

☐ 3 Retired / **No Longer Working**

☐ 4 Changed Residences / **Moved**

☐ 5 **Telecommuting**

☐ 6 **Cost of Gas**

☐ 7 **Cost of Ferry Fares**

☐ 8 **Drive Around** instead of using the ferry

☐ 9 **Inconvenient Transit** Schedules where **Live**

☐ 10 **Inconvenient Transit** Schedules to **Destination**

☐ 11 **Change in Activities** / Recreation / Events

☐ 12 Other: Please describe below

_____

Summer Recreation

Q) On average, how **Often** do you ride Washington State Ferries for **Recreational Purposes**?

☐ 1 First Time Ridden ☐ 3 At least once every **3 months** ☐ 5 At least once every **year**

☐ 2 At least once a **month** ☐ 4 At least once every **6 months** ☐ 6 **Less often** than once a year

Q) How many nights will you be (or were you) away from home on this trip? *(Check one)*

☐ 1 Same Day Trip ☐ 3 2-3 Nights ☐ 5 8 or More Nights
☐ 2 1 Night ☐ 4 4-7 Nights

Q) Is this trip part of a round trip on the ferries?

☐ 1 Yes ☐ 2 No

Q) When did you decide to select the ferry for today's trip?

☐ 1 Today ☐ 3 4 to 6 days ago ☐ 5 1 to 3 months ago
☐ 2 1 to 3 days ago ☐ 4 1 to 3 weeks ago ☐ 6 Over 3 months ago

Q) Which of the following **Best Describes** this trip? *(Check All That Apply)*

☐ 1 Day trip ☐ 4 Camping / Backpacking ☐ 7 Part of a Washington State only trip
☐ 2 Weekend get away ☐ 5 Visiting Family / Friends ☐ 8 Other (describe below)
☐ 3 Going to vacation home ☐ 6 f a Multi-State Trip _____

Q) Which of the following reasons **Best Describes Why You Chose Washington State Ferries** rather than some other way to make **This Trip**?
[Please check below your most important reason and your second most important reason. Please check only one response per column.]

	Please Check Yo **Most Important Rea** *(check one)*	Please Check Your **Second Most Important Re** *(check one)*
Fastest Way	☐ 1	☐ 1
Price	☐ 2	☐ 2
I Would Rather Not Drive	☐ 3	☐ 3
Uniqueness of the Ferry Experience	☐ 4	☐ 4
Relaxing Way to Travel	☐ 5	☐ 5
No Reasonable Alternative	☐ 6	☐ 6
Other [*Please specify*:_____	☐ 7	☐ 7